S
304.64
P30MFI
2004

MONTANA FETAL, INFANT AND CHILD MORTALITY REVIEW

December 2004

Mission: To identify, address and potentially decrease the numbers of preventable fetal, infant and child deaths in the state of Montana.

Second Report
Using 2001 and 2002 Data

STATE DOCUMENTS COLLECTION

MAR 31 2005

MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

Montana State Library
3 0864 1003 3610 9

Montana FICMR

Making a Difference in the Life of a Child

Dedication

This report is dedicated to the memory of the 391 Montana Children who died in 2001 and 2002. Their lives were short. Their deaths were not only untimely but, in most cases, preventable.

Some were fetal deaths—those who died before they could take their first breath of life. Some were termed as *Sudden Infant Death Syndrome.* Some died in car accidents; some by drowning; some by homicide; others by suicide. Each of these deaths is a tragedy—to the family, the community, and the broader society.

These children left behind them unfilled shoes, games that were never played, dance steps that were never learned, enormous potential that was never realized.

We can learn from their deaths. And, we can act upon that learning to prevent similar deaths in the future.

Our children are our legacy, our future, our hope for a better tomorrow. May we never forget.

The Department of Public Health and Human Services gratefully acknowledges the dedication and contribution made by Montana's county & tribal FICMR Coordinators

Beaverhead County/**Sue Hansen RN**

Big Horn County & Crow Agency/
Bill Hodges & Lori Byron MD
Partners with: Northern Cheyenne
Rosebud
Treasure

Carbon County/**Linda Stewart RN**

Cascade County/**Carol Keaster RN**
Partners with: Choteau
Glacier
Liberty
Meagher
Teton
Toole
Pondera

Custer County/**Meredith Hirsch RN**
Partners with: Fallon
Powder River
Prairie

Dawson County/**Jeanne Seifert RN**
Partners with: Wibaux

Deer Lodge County/**Linda Best RN**
Partners with: Powell

Fergus County/**Laurie Jergesen RN**
Partners with: Judith Basin
Petroleum
Wheatland

Flathead County/**Boni Stout RN**
Partners with: Linclon

Gallatin County/**Rebecca Spear RN**

Hill County/**Cindy Smith RN**
Partners with: Blaine
Ft. Belknap
Phillips
Rocky Boy

Lake County & Salish Kootenai Tribal Health/**Linda Davis RN & Barb Plouffe RN**

Lewis & Clark County/**Carol Warford RN**
Partners with: Broadwater
Jefferson

Madison County/**Nadene Turner RN**

Mineral County/**Peggy Stevens RN**

Missoula County/**Laura Bickell RN**

Park County/**Mary Eisvang RN**

Ravalli County/**Judy Griffin RN**

Richland County/**Kathy Helmuth RN**

Sanders County/**Cindy Morgan RN**

Sheridan County/**Kathy Jensen RN**
Partners with: Daniels

Silver Bow County/**Marcia Murja RN**

Stillwater County/**Bonnie Chepulis RN**

Sweet Grass County/**Jeanne ConnerRN**

Valley County/**Vickie Bell RN**

Yellowstone/**Tamalee Eberle RN**
Partners with: Golden Valley
Musselshell

The Department of Public Health and Human Services gratefully acknowledges the State FICMR team members for their commitment to make Montana a safer place for children to live

FICMR Program Coordinator
Wilda McGraw, RN
DPHHS

Members

Rick Chiotti
Office of Public Instruction

Jeanne Conner, RN
Sweet Grass Co. FICMR Coordinator

Dennis Cox
Adolescent Health Consultant
DPHHS

Gary Dale, MD
Medical Examiner

Thom Danenhower
Emergency Medical Services
DPHHS

Tamalee Eberle, RN
Yellowstone Co. FICMR Coordinator
(Alternate)

Jim Edgar
Office of Vital Statistics
DPHHS
Co-Chair, 2004-2005

Mary Eisvang, RN
Park Co. FICMR Coordinator
(Alternate)

Kathy Helmuth, RN
Richland Co. FICMR Coordinator
Chair, 2004-2005

Diane Jeanotte, RN
Indian Health Services

Bill Jones
Yellowstone Co. Deputy Coroner
MT Sheriff's & Peace Officer's Assoc.

Gary James Melbourne
Fort Peck Tribal Health Director

Evelyn Rider, MD
Neonatologist; Benefis East Hospital

Janet Runnion, RN
Rocky Boy FICMR Coordinator

Nels Sanddal
Critical Illness and Trauma Foundation

Pat Sauer, MD
Pediatrician; Billings Deaconnes Hospital

Cindy Smith, RN
Hill Co. FICMR Coordinator

Mike Spence, MD
Medical Director
DPHHS

Boni Stout, RN
Flathead Co. FICMR Coordinator

Barbara Tymofichuk, RN
Granite Co. FICMR Coordinator
(Alternate)

Samantha Walsh
Child and Family Services
DPHHS

EXECUTIVE SUMMARY

In 2001 and 2002, 391 fetuses, infants and children died in Montana. The Fetal, Infant and Child Mortality Review (FICMR) teams reviewed 316 of these deaths.

The mission of Montana's (FICMR) program is to reduce fetal, infant and child mortality by identifying preventable deaths through comprehensive case reviews. A child's death is considered to be preventable if an individual or the community could reasonably have done something that would have changed the circumstances that led to the child's death. Using this information, the FICMR programs identify and implement changes in policy, services and programs that can prevent other deaths.

To date, fifty-three counties and six tribes participate in FICMR, and conduct local level reviews on approximately 90% of Montana's fetal, infant and child deaths.

This report summarizes the 2001-2002 local findings and presents community and state prevention actions, as well as recommendations for changes in state policy and practice that may prevent other deaths.

The reviewed deaths are not a scientific sample of all fetal, infant and child deaths in Montana. The reader should be cautious in projecting findings based on the death reviews in this report to all of the deaths occurring in the fetal, infant and child population of Montana.

FINDINGS

- **Preventability**: Of the 277 (88%) deaths with adequate information to assess preventability, 24% of the infant deaths and 64% of the child deaths were determined to be preventable.
  93 infant's and children's deaths could have been prevented.
- **Fetal Deaths**: There were 104 reported fetal deaths in this two-year period. 88 fetal deaths were reviewed; 68 had adequate information for prevention determination; ***four fetal deaths were preventable.***
- **Infant Deaths (Birth – 1 yr)**: There were 154 infant deaths in this two-year period. Congenital anomalies were the primary causes of these deaths, followed by SIDS.
  - 116 infant deaths were reviewed; 103 had adequate information for prevention findings; ***twenty-five infant deaths were preventable.***
- **Child Deaths (Ages 1 – 17)**: There were 133 child deaths in 2001-2002. Motor vehicle crashes were the primary causes of death for these children. Medical reasons were second, suicide third.
  - 112 deaths were reviewed; 106 had adequate information to determine preventability; ***sixty-eight child deaths were preventable.***
- **Prematurity:** Over 60% of all fetal and neonatal deaths (reviewed) were both low birth weight and premature.
- **Substance Abuse:** 40% of the mothers of post neo-natal deaths reported alcohol consumption, and 68% reported smoking.
- **SIDS**: Thirty-two SIDS (or "other applicable infant deaths") were reviewed.
  - 42% of the infants were found in the prone (tummy) position.
  - Cigarette smoke exposure was found to be the second leading risk factor for these deaths.
  - Average age of SIDS mothers was 23.6 years; the average age for moms of other deceased infants was 27.1 years.

- **Suffocation:** There were 16 infant suffocation deaths in this reporting period.
    - Native American infants account for five of 16 suffocation deaths (31%), but only 12% of births.
- **Child Abuse and Neglect**: Approximately 10% of all reviewed deaths from 1997-2001 had evidence of prior abuse and neglect.
    - The proportion of reviewed deaths with prior abuse/neglect is four times higher among Native Americans than among whites.
- **MVC (motor vehicle crash)**: FICMR teams identified 41 MVC deaths. 38 of 41 deaths were determined to be definitely preventable.
    - 22 of the deaths were reported to have been in vehicles where seat belts were present but not used by the decedent.
    - "Driver error" was noted in 25 of 41fatal incidents.
    - Alcohol was identified as a factor in four deaths.
- **Firearms**: On average, 12 children die as a result of firearms every year, and the majority of these firearm deaths are suicides.
    - There were 22 firearm deaths in 2001-2002.
    - Eighteen deaths were reviewed; 9 rifles, 5 handguns, and 3 shotguns were involved.
    - None of the firearms were reported to have been stored in a locked cabinet.
- **Suicide**: There were 17 suicides in this time period.
    - 16 of these suicides were reviewed.
    - 15 were males.
    - Of the 13 suicides in which guns were used, eight involved a rifle, three involved a shotgun and two a handgun.
- **Homicide:** There were 9 homicides in 2001-2002; six were reviewed.
    - Two of the victims had evidence of prior abuse or neglect.
- **Drowning:** There were 9 drowning deaths; 7 were reviewed and all were determined preventable.
- **Disparities:** 12.5% of Montana births were Native American, yet 17% of fetal/infant deaths and 18% of child deaths were Native American.
  A disproportionate number of Native American children are dying.

COMMUNITY (C) AND STATEWIDE (S) PREVENTION ACTIVITIES

- (C) Recommended toxicology screens be completed on all undetermined deaths.
- (C) Recommended toxicology screens on all youth suicides.
- (C) Recommended a hospital policy change that would mandate the pediatrician or neonatologist examine a non-autopsied fetal demise before it goes to the morgue.
- (C) In cooperation with a local school district, distributed 6000 safety sheets about children riding in the front seat with airbags.)
- (C) Implemented a Sleep "a-loan" Program which temporarily provides a portable crib to families who do not have a safe place for their baby to sleep.
- (S) Implemented a statewide Native American Back to Sleep Campaign.
- (S) Implemented an Administrative Rule change that requires registered day care providers to place infants to sleep on their backs.
- (S) Provided local FICMR Coordinators with an in-service on child abuse and neglect.
- (S) Partnered with the March of Dimes and distributed prematurity prevention information statewide via the local FICMR coordinator network.

GLOSSARY

Child Death	Death of a child under the age of 18 years.
Fetal Death	Birth of a fetus that weighs at least 350 grams or, if the weight is unknown, has reached 20 weeks gestation.
FICMR	Fetal, Infant and Child Mortality Review
Infant Death	Death of an infant less than 365 days (one year) old.
Infant Mortality Rate	Number of deaths of infants under age 1 per 1,000 live births in a given year.
Neonatal Death	Death of an infant under 28 days of age.
Perinatal Death	Total number of fetal and neonatal deaths.
Postneonatal Death	Death of an infant aged 28 days to one year.
Preventable Death	A preventable death is one in which, with retrospective analysis, it is determined that a reasonable intervention (e.g., medical, educational, social, legal or psychological) might have prevented the death. Reasonable is defined by taking into consideration the condition, circumstances or resources available. This information can provide guidance for local prevention activities and, aggregated at the state level, may indicate opportunities for broader action.
Non-Preventable Deaths	Examples of non-preventable deaths include: terminal medical conditions; fatal injuries sustained in the course of a natural disaster; and unforeseeable medical complications leading to death.
Sudden Infant Death Syndrome (SIDS)	The diagnosis given for the sudden death of an infant under one year of age that remains unexplained after a complete investigation. Recognized factors associated with SIDS deaths include: ♦ Sleeping on the stomach or side ♦ Soft sleep surfaces and loose bedding ♦ Overheating and use of heavy bedding ♦ Prenatal smoking and second-hand smoke exposure after birth ♦ Sleeping in crowded conditions with other people and/or objects ♦ Preterm birth and low birth weight
Undetermined Deaths	Any death for which data were insufficient for informed judgment; or deaths that involved equivocal legal evidence of abuse, neglect or inflicted injury beyond the scope of the FICMR team to resolve
Unintentional Injury	This category includes fatal injuries to children sustained by falls, drowning, motor vehicle crashes and a host of other causes

TABLE OF CONTENTS

Introduction 1

Status of FICMR in Montana 2

Preventability 3

Concurrence with Death Certificate.....4

Fetal, Infant and Child Deaths: Causes.....5

Fetal, Neonatal and Postneonatal: Causes 10

Prematurity & Low Birth Weight 11

Entry Into Prenatal Care 12

Substance Abuse 13

Toxicology 14

Review Team Findings by Cause of Death

- Sudden Infant Death Syndrome (SIDS) 16
- Suffocation 19
- Child Abuse and Neglect 20
- Motor Vehicle Crashes 22
- Firearms 25
- Suicide.....26
- Homicide 27
- Drowning 29

Racial Disparities 30

Other Local Community Recommendations/Actions.....32

Accomplishments, Challenges and Plans 33

Appendix A (Tables)

- Table 1: Summary of Prevention Findings A1
- Table 2: Fetal, Infant & Child Deaths and Reviews, 1997-2002 .....A2
- Table 3: FIC Deaths & Reviews, by Age: 1997-2000; 2001-2002 .....A3

Table 4: Infant & Child Deaths by Manner of Death: 1997-2000; 2001/2002..A3
Table 5: Fetal & Infant Deaths by Race, Gender & Age: 2001-2002 .....A4
Table 6: Montana Demographics & FICMR Summary: 2001-2002 ..... A5
Table 7: Fetal & Infant Death Rates; 1997-2002 .....A6
Table 8: Infant & Child Deaths & Reviews, by Cause of Death: 2001/2002....A7
Table 9: Injury/Violent Deaths of Infants & Children: 2001-2002 .....A8
Table 10: Motor Vehicle Crash Deaths A8
Table 11: Adolescent Suicide A8
Table 12: Firearm Deaths A9
Table 13: Total Fetal, Infant and Child Deaths, By County or Residence.....A10
Table 14: Total Number of Reviews, By County.....A12
Table 15: Regional Summary.....A13
Table 16: Infant Mortality Rate (deaths/1000 births).....A14
Table 17: Deaths & Reviews, by Region & Age Group: 2001-2002.....A15
Table 18: Infant & Child Deaths, by Region & Manner of Death A16

Appendix B (Montana Counties by Region)
Appendix C (Montana Code Annotated)
Appendix D (Press Releases)

INTRODUCTION

There were 391 fetuses, infants and children who died in Montana in the years 2001 and 2002. Each one of these deaths is a tragedy, and leaves grieving family and friends, and a community searching for answers.

An in-depth analysis of each child's death can help us identify how to best prevent another child from dying of similar circumstances. The Montana Fetal, Infant and Child Mortality Review (FICMR) program was established by legislation in 1997 to conduct these in-depth reviews.

This FICMR report includes information from two different sources - the death certificate file prepared and provided by the Office of Vital Statistics and the FICMR database prepared by the Montana FICMR Coordinator. The death certificate (DC) file identifies all deaths that are reported in Montana and provides basic demographics on the decedents and their cause of death. The FICMR database is not (yet) a complete enumeration of all deaths, but it provides information on individual deaths that is not available on the death certificate. This additional information can be used to identify prevention opportunities for local action and statewide programs. Most of this report is the result of an attempt to use the review data to describe the circumstances associated with infant and child deaths. The review process also provides a check on the cause of death and demographic data as reported on the death certificate. Personal identifiers – such as names or addresses – are not included in either data set that the state FICMR team uses.

The "reviewed" deaths are not a scientific sample of all fetal, infant and child deaths in Montana. The reader must be cautious in interpreting findings based on the death reviews in this report to all of the deaths occurring in the fetal, infant and child population of Montana.

Montana FICMR teams reviewed 316 (81%) of these tragic deaths for 2001 and 2002. The goal is 100% review of all fetal, infant and child deaths.

This is the second FICMR report to be published. The inaugural FICMR report was released in November 2002, and can be found on the Department of Public Health and Human Services web sight at www.dphhs.state.mt.us

Fetal, Infant, Child Death Reviews, Montana; 2001-2002

STATUS OF FICMR IN MONTANA

Initial legislation assumed FICMR review teams in each county. Many frontier counties (population under 7,000) were unable to establish their own teams due to limited resources. The FICMR legislation was revised by the legislature in 2003, allowing county and tribal governments to partner with established review teams, and increase the potential for review of 100% of statewide deaths. Review of each infant and child death is important for preventing future death and injury.

The State FICMR Team

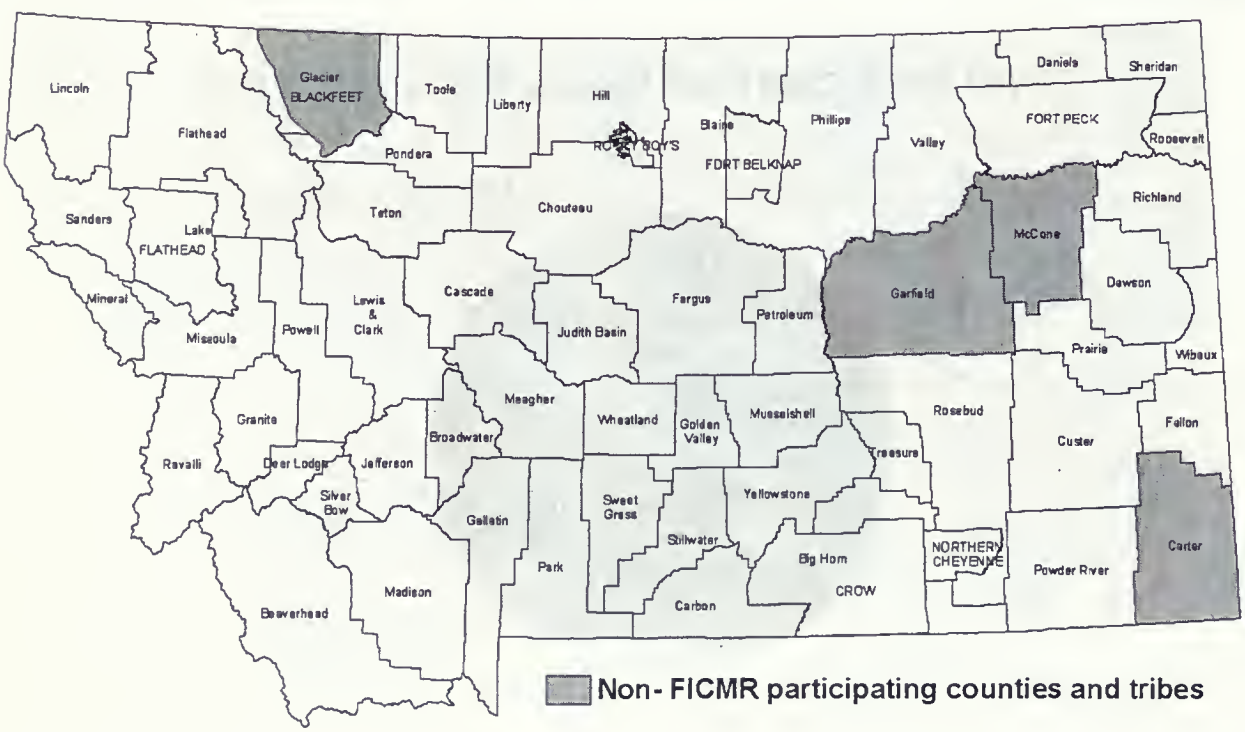
The State FICMR team is critical to Montana's FICMR program, serving in an advisory capacity to local review teams. The team utilizes local case review data for recommendations for potential Maternal Child Health policy development, legislative actions, and for support of prevention activities at the state and local levels. Members include local FICMR coordinators, (one each from a frontier, rural and urban county), medical specialists, and representatives from state and federal agencies.

Local FICMR Teams

Montana statute requires that local mortality review teams be multidisciplinary and include at least five members from a recommended list of medical professionals and individuals representing local, state and federal agencies. Public health nurses provide FICMR team leadership; other core membership includes a medical provider, county coroner, county attorney and representatives from the following: public health, department of family services, local school district, mental health, local hospital, and tribal government.
Fifty-three of Montana's 56 counties, and six of Montana's seven Indian Reservations currently participate in FICMR reviews.

FICMR in Montana

December 2004



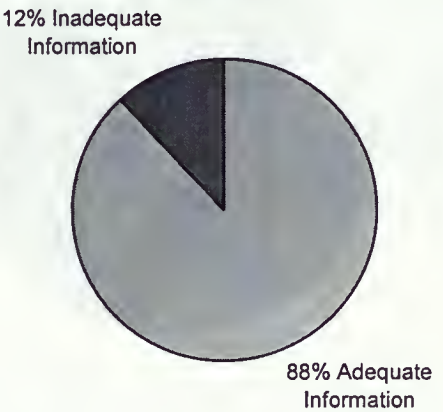
PREVENTABILITY

The primary purpose for the fetal, infant, and child review process is to identify the prevention potential for the death being reviewed. This information can provide guidance for local prevention activities, and, aggregated at the state level, may indicate opportunities for broader action.

Montana FICMR defines a preventable death as *one in which, with retrospective analysis, it is determined that a reasonable intervention (e.g., medical, educational, social, legal or psychological) might have prevented the death. Reasonable is defined by taking into consideration the condition, circumstances or resources available.*

The teams determined that there was adequate information for a preventability determination for 88% of the reviewed deaths (277/316). The adequacy of information increased with age of death, from 77% for fetal deaths to 95% for child deaths. There was also a strong increase with age in the proportion of deaths determined to be preventable, but this is associated with the distribution of cause of death by age group. Later in this report you will find a discussion of causes of death by age group that will address these differences.

Adequate Information for Prevention Determination, Montana; 2001-2002



Preventability Overview (of Reviewed Deaths)

- Three of five accidental infant deaths were preventable
- Ten of sixty-five deaths due to natural causes were preventable
- Fifty-two of fifty-six accidental child deaths were preventable
- Nine of seventeen suicide deaths were preventable
- Four of six homicide deaths were preventable

2001 - 2002 Deaths, Reviews, and Preventability Determination

	Deaths	Reviews	Ratio, Reviews / Deaths	Prevention Information from Reviews		
				Adequate	Preventable	% Preventable
Fetal Deaths	104	88	0.85	68	4	5.9
Infant Deaths	154	116	0.75	103	25	24.3
Child Deaths	133	112	0.84	106	68	64.2
All Deaths	391	316	0.81	277	97	35.0

CONCURRENCE WITH DEATH CERTIFICATE

The local review teams verify the death certificate (DC) cause of death and can concur or not with the DC.

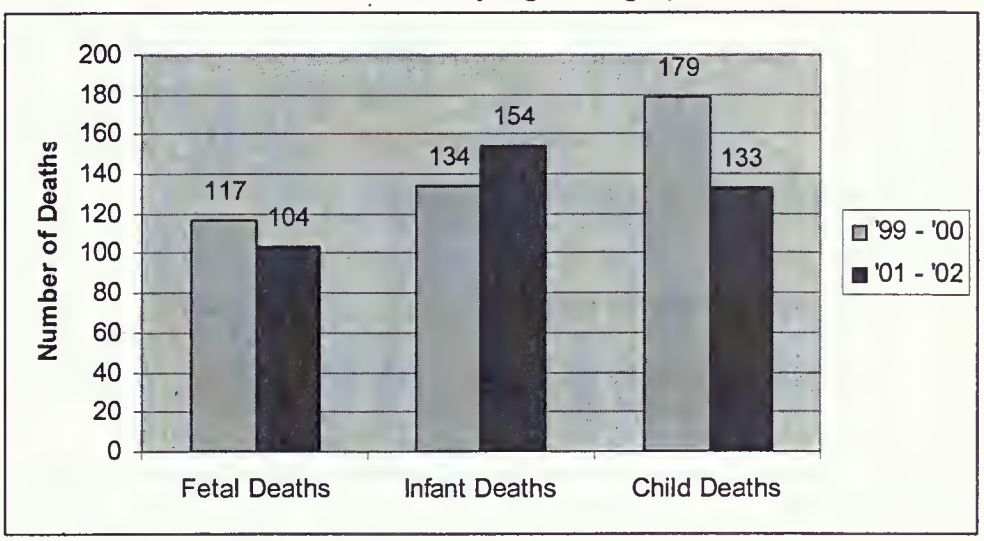
- The teams concurred on 289 of 316 reviewed deaths in 2001 and 2002.
- The teams left the "concur" field blank on seven deaths, responded "No" on 11, and indicated "Unknown" on nine.

FICMR Reviews Concurring with Death Certificate Cause Of Death, Montana; 2001-2002

1) 3 %--Unknown
2) 2%--Left Blank
3) 3%--Not Concurring
4) 92%--Review COD Concurs with Death Cert COD

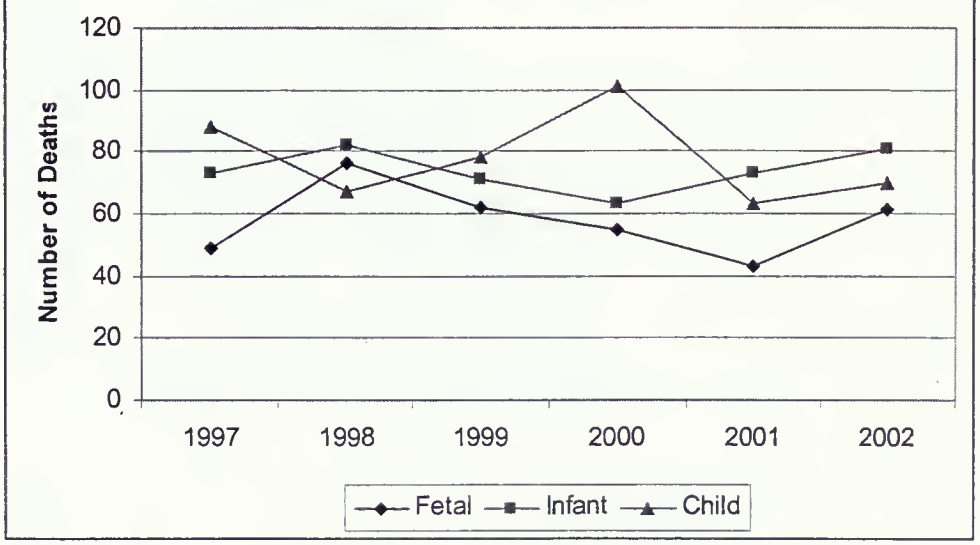
The total number of fetal, infant, and child deaths was lower the past two years (391) than it had been in the preceding two years (431). Child deaths decreased 26% from 179 to 133, while infant deaths increased and fetal deaths decreased. The biggest absolute change was in vehicle-related deaths, with a drop from 70 deaths in 1999-2000 to 44 deaths in 2001-2002. Table 4 (Appendix A) provides a summary of the deaths for the 1997-2000 and 2001-2002 periods by age category and cause of death.

FIC Deaths by Age Category

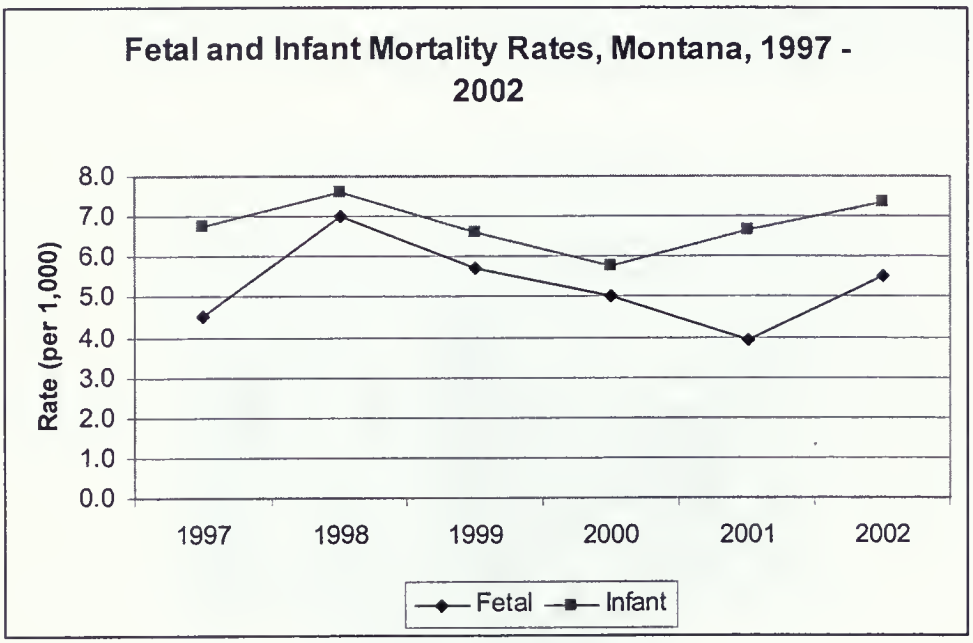


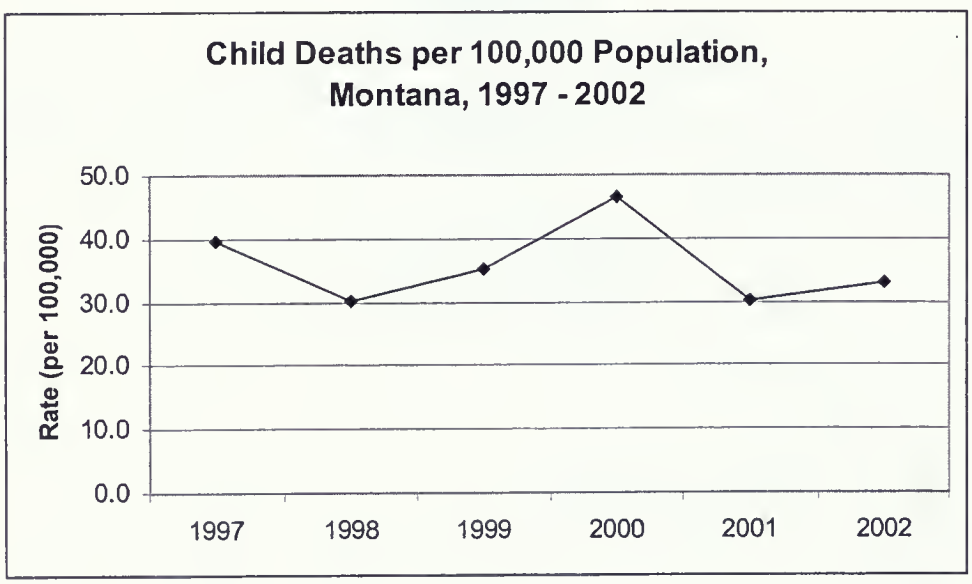
The number of fetal deaths and deaths of infants and youth ages less than 18 varied from year to year between 1997 and 2002. The total number of FIC deaths was at its lowest in 2001 (179), but the average has been about 209 per year over the six years. The 2001 low was due to six-year lows for both fetal and child deaths, and deaths in both categories went up in 2002.

Figure T1. FIC Deaths, Montana, 1997 - 2002



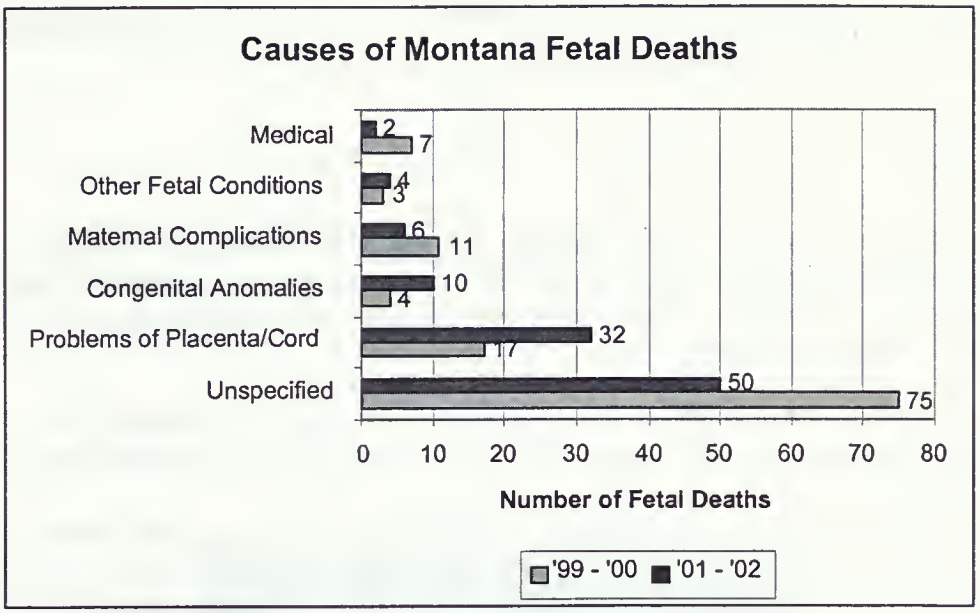
The number of births and the estimates of the population ages 1 through 17 have not changed very much over the six years, so the rate trends reflect the absolute numbers of deaths. It is tempting to look for a decrease in FIC deaths and to attribute any observed decrease to the activities resulting from the review process. However, the annual statistical fluctuations in number of FIC deaths make it difficult to draw meaningful short-term conclusions. Prevention activities (i.e., a graduated driver license law) will yield results over the long term. However, given the relatively small number of FIC deaths to a specific cause in any one year, it will take a number of years to accumulate enough data to see changes.





Fetal Deaths

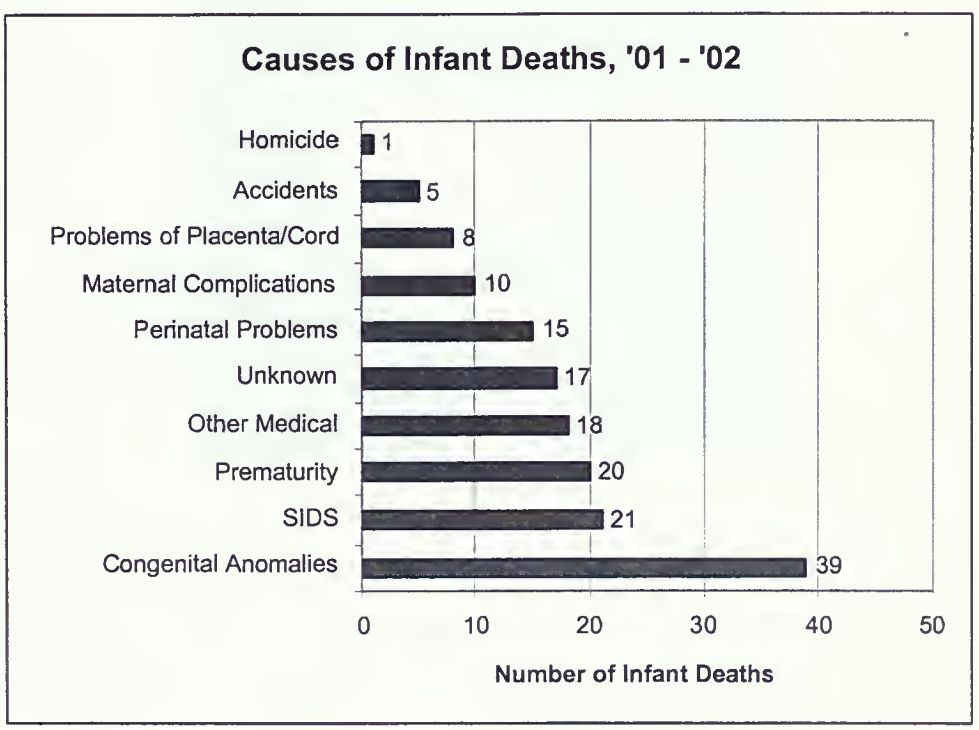
A fetal death is defined by the stillborn delivery of a fetus that weighs at least 350 grams, or, if the weight is unknown, is at least 20 weeks gestation. There were 104 reported fetal deaths in Montana in the two-year period (2001-2002) addressed in this report. There were 117 in the preceding two-year period. The cause of death is "unspecified" for a majority of the fetal deaths.



The FICMR teams reviewed 88 fetal deaths ('01-'02), decided that there was adequate information to determine preventability for 68 of the 88, and determined that four fetal deaths were preventable. Since there is not a standard definition for fetal death, there is no directly comparable national rate.

Infant Deaths

An infant death is the death of a live born infant between birth through 364 days after delivery. There were 154 infant deaths in Montana from 2001 through 2002, which is an increase from 134 in 1999 and 2000.

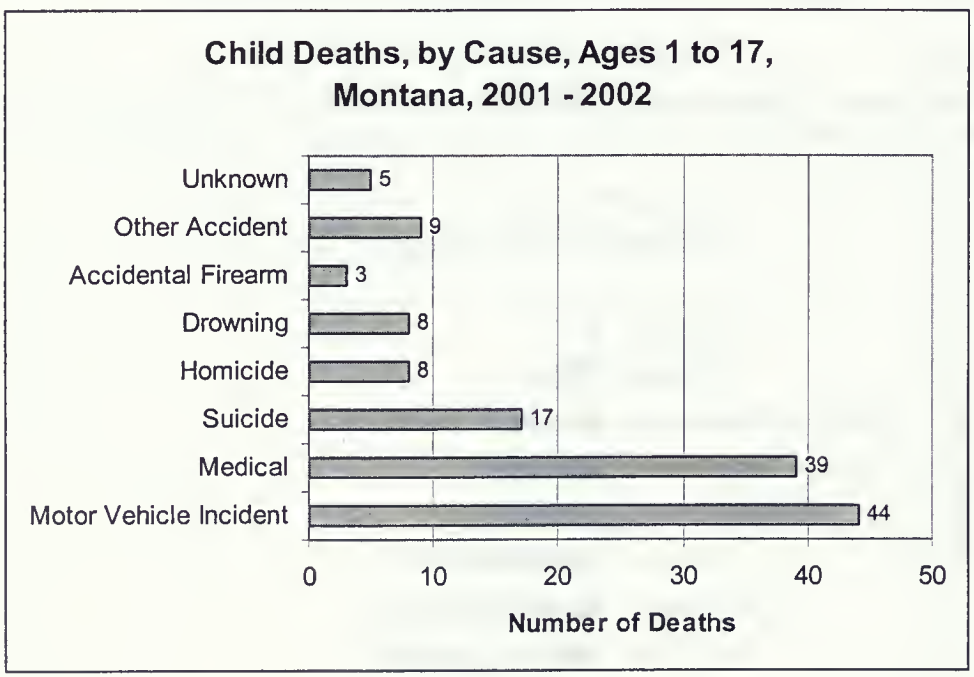


- One hundred and ten infant deaths were classified as due to natural causes (not including SIDS, unknown, accidents and homicide).
- The teams reviewed 116 infant deaths, and there was adequate information to determine preventability for 103 of those 116 deaths. The FICMR teams determined that 25 (of the 103) infant deaths were preventable.
- Only four of 67 (6%) of deaths from medical causes were judged preventable; seven of 15 SIDS and seven of 14 unknown were preventable.
- The Montana infant mortality rate for 2001-2002 of 7.0 per 1,000 live births is approximately the same as the preliminary national 2002 rate (6.95).

Child Deaths

The Montana review of child deaths includes children and adolescents from one through 17 years of age. There were only 133 deaths in this age group in 2001 and 2002 – a 26% decrease from the 179 deaths in 1999 and 2000. Motor vehicle incidents were responsible for one-third (44) of the 133 deaths, and half of those 44 deaths were among 15 to 17 year old adolescents.

- The teams reviewed 112 deaths in this age range, and they found adequate information to assess preventability for 106 of the 112 deaths. FICMR teams determined that 68 of the 106 deaths were preventable (64.2%).
- Medical deaths account for only 29% of all deaths among 1 to 17 year old children and 25% of the reviewed deaths. The high proportion of preventable deaths in this age group is attributable to the high proportion of accidental and intentional injury deaths. These deaths are more likely to be preventable than the natural (or medical) deaths.
- Fifty-two of the accidental deaths reviewed were determined to be preventable, along with four of the six homicides and nine of the 15 suicides.



The age group specific mortality rates for Montana youth ages 1 to 17 are based on small numbers of deaths in the two-year period. However, the Montana rates appear very comparable to the national rates, except for the 5 to 9 age group.

Child Mortality Rates, Comparison of Montana and National Rates, 2001 - 2002

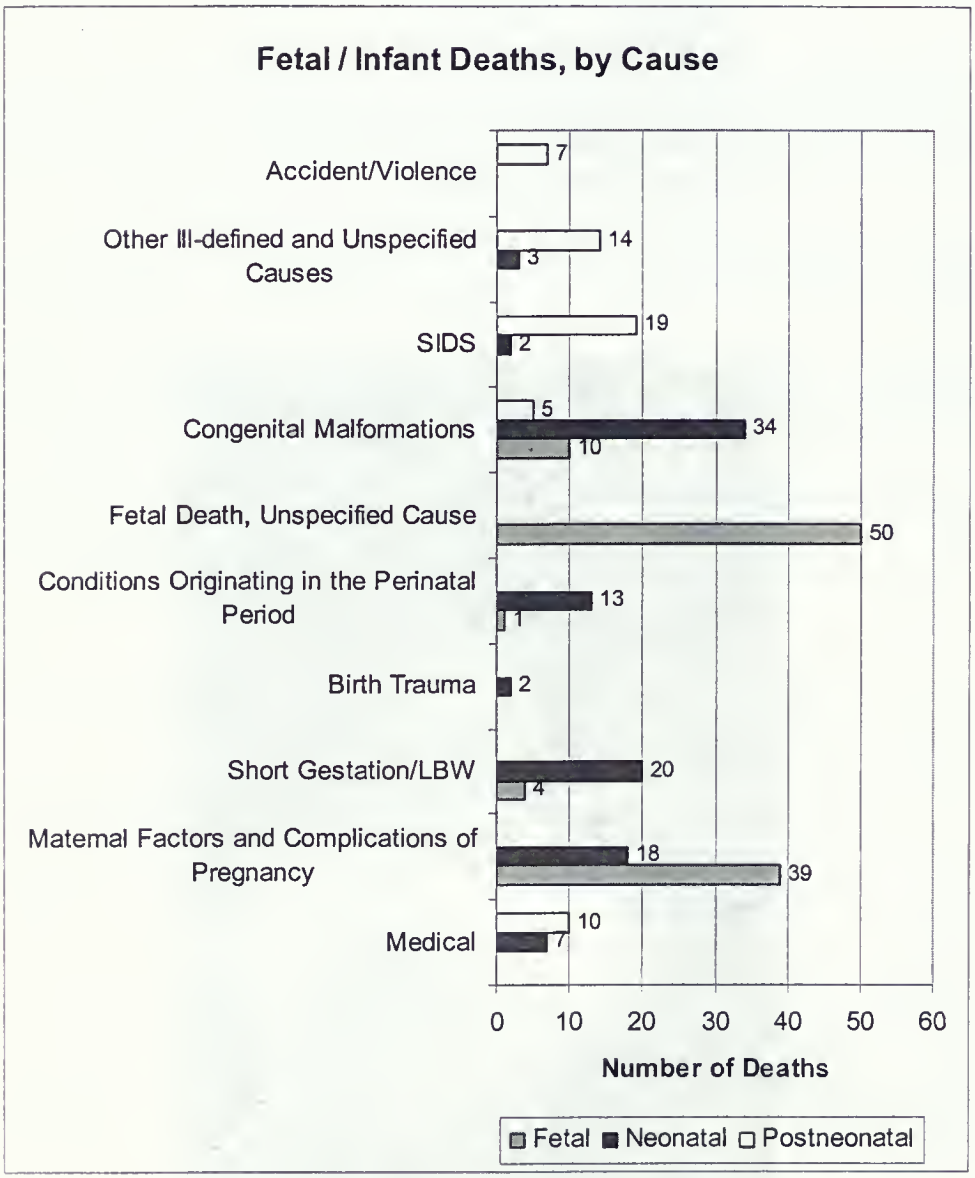
Age Group	Montana	National*
1 to 4	31.9	31.2
5 to 9	27.2	15.2
10 to 14	18.7	19.5
15 to 17	56.7	
15 to 19		67.8

* Preliminary, 2002
Rates are deaths per 100,000

FETAL, NEONATAL AND POST NEONATAL

The review of fetal and infant deaths provides information that can potentially be used by the medical and health service communities to improve pregnancy outcomes and the survival of high-risk infants. For example, the review of the SIDS deaths provides details on the sleeping environment of the infant. This information will inform "Back to Sleep" campaigns and possibly improve or redirect these education interventions.

There were 258 fetal and infant deaths reported in 2001 and 2002. The fetal death certificate includes data on the pregnancy and selected risk factors for adverse outcomes. The same pregnancy-related information is available for all infant deaths if the death certificate is linked with the corresponding birth certificate.



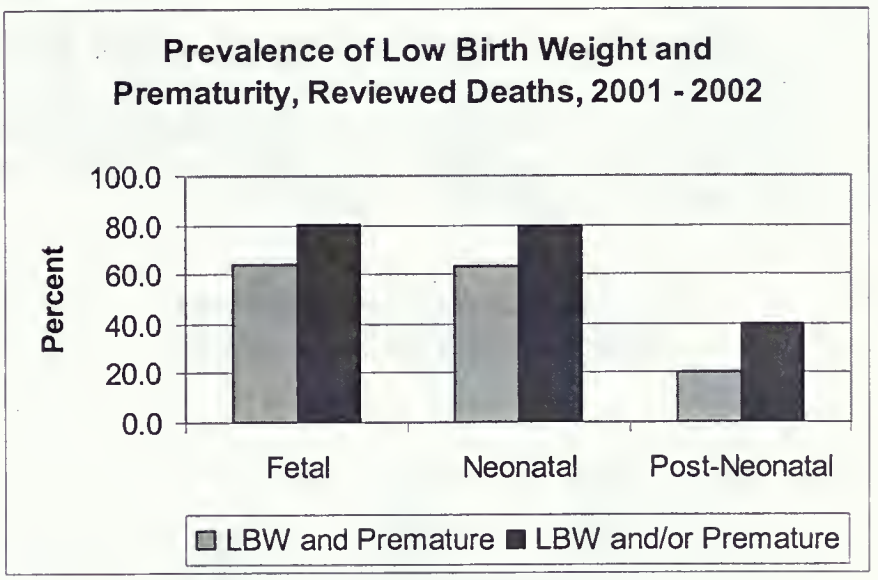
The death certificates provide the ICD10 code for the cause of death. The figure above provides a summary of causes of death for fetal deaths, neonatal deaths (infants ages 0 through 27 days) and post-neonatal deaths (28 through 364 days). The majority of fetal deaths (50) are listed as "unspecified fetal death", and 39 more are "maternal factors and complications of pregnancy". The largest number of neonatal deaths is attributed to congenital problems (34), followed by prematurity / low birth weight. There are fewer post-neonatal deaths (55) than neonatal (99), and SIDS is the major cause (19).

PREMATURITY and LOW BIRTH WEIGHT

Pregnancy-related information is also collected in the FICMR review, and the following discussion of risk factors is based on the FICMR data.

A premature birth is defined as a birth before 37 completed weeks of pregnancy. The definition of a low birth weight baby is one born weighing less than 5 pounds 8 ounces.

- Premature delivery and low birth weight are documented risk factors for infant mortality.
- Over 60% of all fetal and neonatal deaths (reviewed) were both LBW and premature.
- 80% were either LBW or premature or both.
- These two factors are also contributors to post-neonatal deaths, but the association is not as strong.



- Medical complications during pregnancy were identified for 98 of the 204 fetal/infant death reviews.
- Preterm delivery was the most frequently cited complication. It was the only complication for 20 of the pregnancies, and one of two or more for 14 of the pregnancies.
- Eleven reviews identified "anemia".
- No other single complication was cited more than eight times.

Local Community Recommendations/Interventions

1. Taught signs/symptoms of preterm labor at WIC appointments
2. Implemented a policy with local "immediate care facility" that pregnant women who are seen at this office on the weekends will have their primary care physicians notified

State Prevention Efforts

1. Supported the March of Dimes "Walk America" campaign by forming a DPHHS walking team
2. Provided prematurity education to DPHHS staff
3. Partnered with the March of Dimes and distributed prematurity prevention information statewide via the local FICMR coordinators

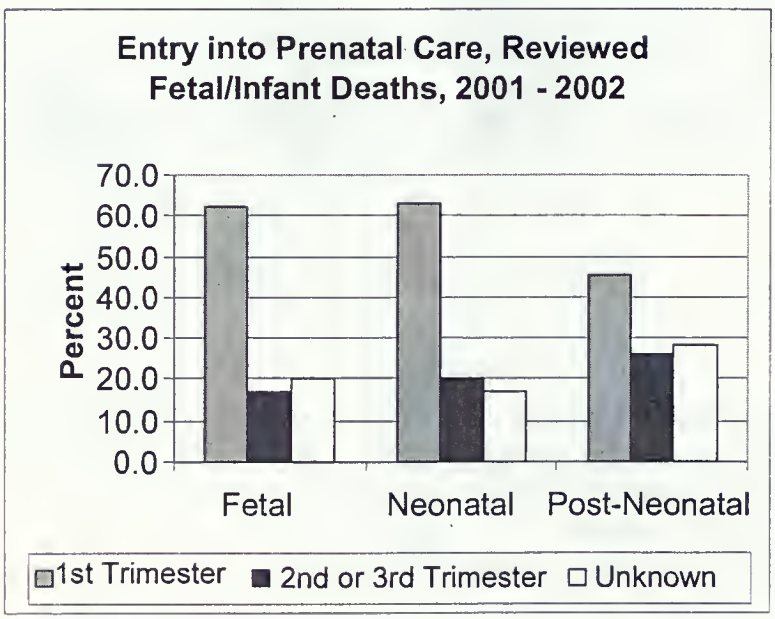
ENTRY INTO PRENATAL CARE

Prompt prenatal care provides an opportunity to identify medical risk factors at an early stage and to identify social / behavioral factors that may be detrimental to a developing fetus. If the "unknown entries into prenatal care" are excluded:

- The mothers of 23% of fetal and neonatal decedents entered prenatal care after the first trimester.
- The distribution of entry into prenatal care is very similar for fetal and neonatal deaths.
- The mothers of infants who died during the post-neonatal period appear to enter care later than the mothers of the shorter-survival infants.

The MIAMI/Public Health Home Visiting Program provides an additional resource for qualifying pregnant women. This program has been in place in Montana since 1986, and it's purpose is to assure that mothers and children, in particular those with low income or with limited availability of health services, receive access to quality maternal and child health services. FICMR reviews ask if MIAMI/Home Visiting services were provided during the pregnancy.

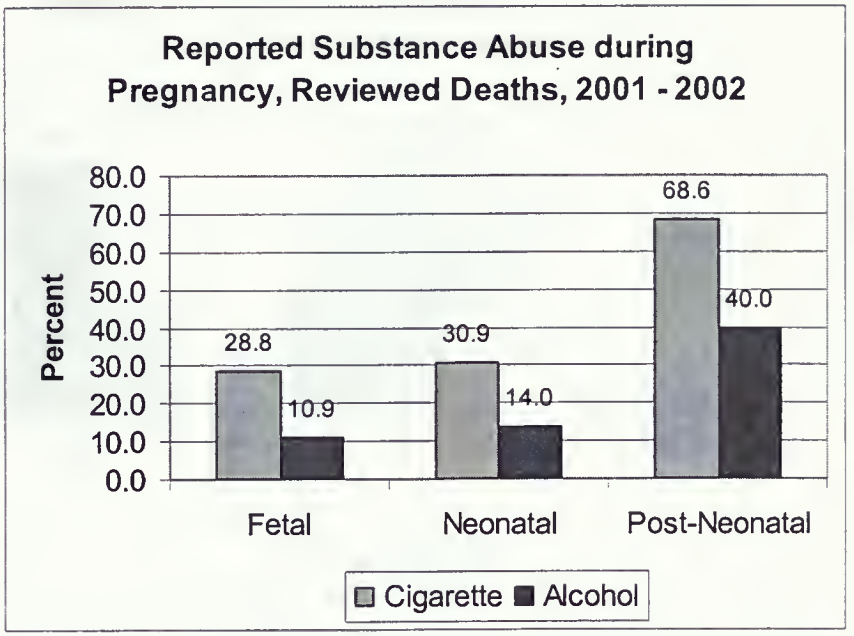
- There were 187 responses to this question from the FICMR reporting tool. Only 21 of 187 women participated in the program.
- The proportion participating appears to increase with survival of the infant, but the numbers are low.
- Only 6% of the women with fetal deaths indicated participation, but 17.5% of mothers of infants who died after 27 days of life reported MIAMI visits.



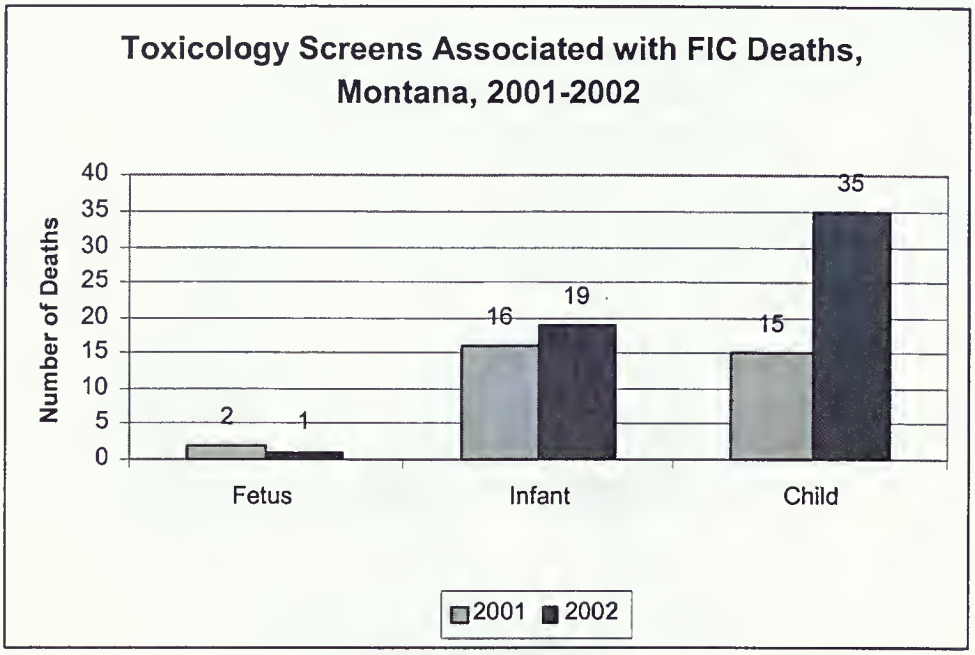
SMOKING AND ALCOHOL CONSUMPTION

The prevalence of smoking or alcohol consumption during pregnancy was high, particularly among the mothers of post-neonatal deaths.

- Forty percent of the mothers of infants who died during the post-neonatal period reported alcohol consumption, and 68.6% reported smoking.

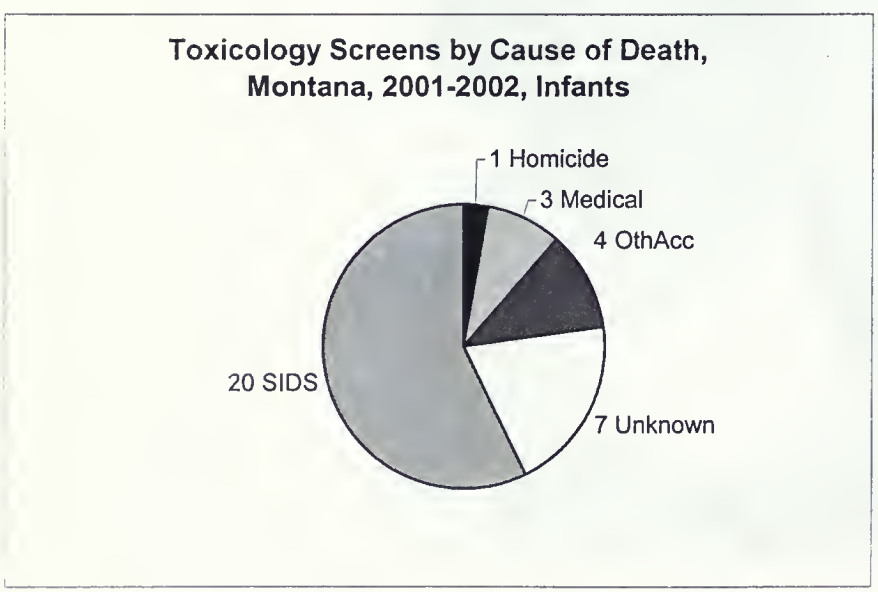


The number of reviewed FIC deaths with reported toxicology screens increased from 33 in 2001 to 55 in 2002. Most of the increase was associated with child deaths.



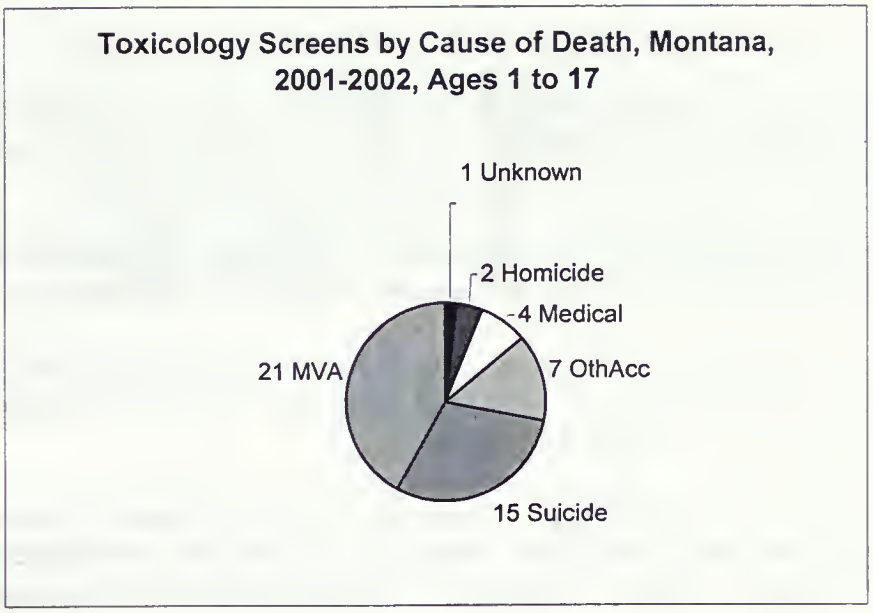
The 2002 FICMR form includes a question on the results of the toxicology. Results were given for 42 of the 55 deaths with toxicology identified.

- The results were "negative" for 20 of the 42 reports.
- Three parents (of two infants and one fetal death) tested positive for drugs or alcohol.
- One youth died of alcohol overdose (0.30 Blood Alcohol Level) and a suicide victim had an elevated BAC (0.12).



A majority of the screens associated with infants were SIDS deaths. The FICMR form identifies the person screened, and 17 of the SIDS screens were on the deceased infant. The toxicology associated with child deaths was mainly on motor vehicle (21) and suicide (15) events.

A majority of the motor vehicle (14) and suicide (13) victims with associated toxicology were teens ages 15 to 17.



Thirteen infant's deaths could have been prevented

Key Findings:

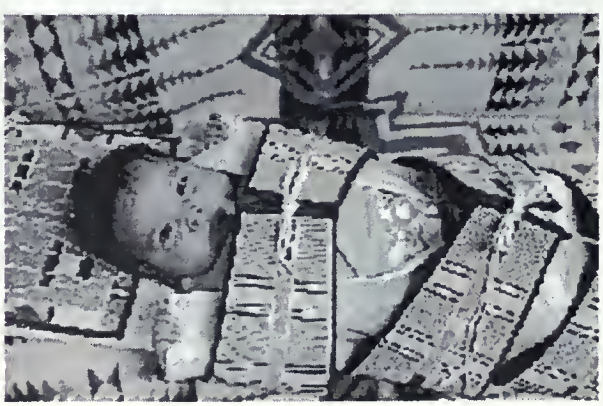
- **2002**: death certificates originally identified 15 deaths as due to SIDS. FICMR teams reviewed 14 of those deaths and concurred with the death certificate on 13 of those deaths. The death certificate for the one death for which the team did not concur on the cause was not changed.

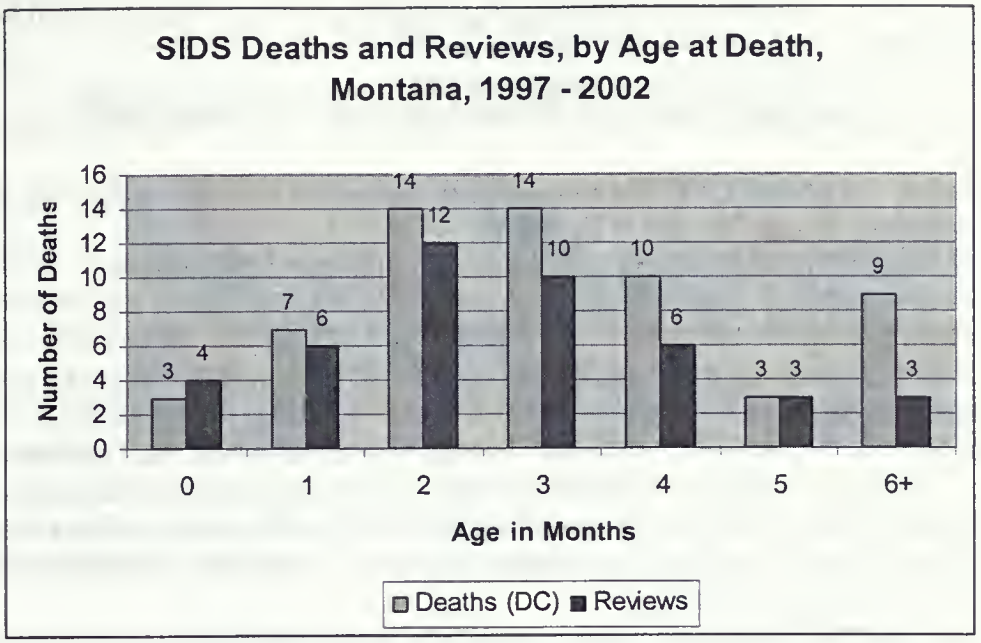
  There was another death certificate with an "undetermined" cause of death that was reviewed by the FICMR team, and the death certificate was changed to SIDS as a result of the case review.

  2001: death certificates identified 5 deaths as due to SIDS. Four of the five SIDS deaths were reviewed, and FICMR teams concurred with three. The death certificate for the one death for which the team did not concur on the cause was not changed.

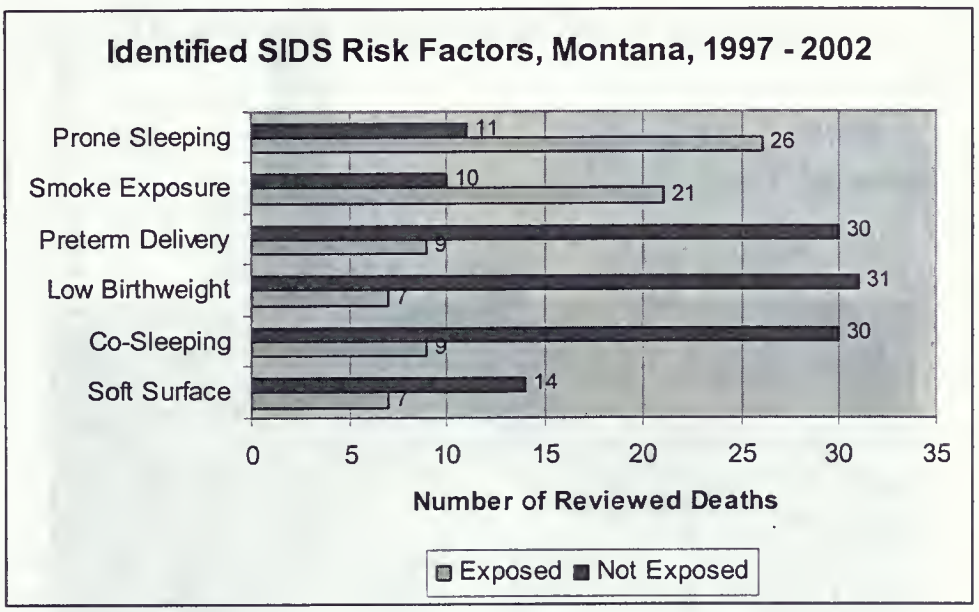
- There were a total of 32 combined SIDS or "other applicable infant deaths" reviewed by FICMR teams in 2001 and 2002. Nineteen of these deaths were also coded as SIDS on the death certificate.
- Eleven of the 26 deaths for which the position in which they were found was identified, were on their stomach.
- Eighteen of the deaths were in the child's home, and another six deaths were in another home. Two of the deaths occurred in a licensed daycare facility, three in an unlicensed situation, and the hospital was indicated as the location for three of the deaths.
- Twenty of 25 deceased infants were exposed to second hand cigarette smoke (exposure for seven infants was unknown).
- Supervision was judged to be inadequate for seven of the 32 deaths (but only two of the 19 DC SIDS). A mother, father, or both were supervising the infant at the time of death. Five of the 32 infants were under the care of a babysitter / daycare provider.
- The mothers of SIDS infants appear to be younger than the mothers of infants who died of other causes. The average age of SIDS mothers was 23.6 years (10% were 30 or older), and the average age for moms of other deceased infants was 27.1 (35% 30 or older).

The reporting of SIDS deaths on the death certificate varies from year to year, but the average has been 10 deaths per year for the past six years. The highest number reported in one-year was 15 in 2002, but the preceding year only had five reported SIDS deaths. The FICMR form used for 1997 through 2001 had a category for "SIDS and other applicable infant deaths". The reviewed SIDS deaths in the following two figures only include deaths identified on the death certificate as SIDS. For 1997 – 2002, there were 44 reviewed deaths with SIDS coded on the death certificate.





Forty of the 44 reviews identified at least one of the six listed risk factors. Prone sleeping (on stomach or side) and cigarette smoke exposure were the most common identified risk factors.



Local Community Recommendations/Interventions

1) Educated daycare and Early Head Start staff regarding safe sleeping
2) Contacted area lay midwives regarding educating clients about current Back to Sleep literature
3) Met with hospital nursery staff to ensure Back to Sleep education is given to every parent (not just first time moms)
4) Recommended adding "back to sleep" education to the patient discharge-teaching checklist at local hospitals
5) Started a Sleep "a-loan" Program which temporarily provides a portable crib to families who do not have a safe place for their baby to sleep
6) Produced bright green "Safe Sleep" door hangers which were provided to the local hospitals and health care providers to give to patients/families who have infants
7) Promoted breastfeeding via involvement with the community breastfeeding coalition

8) Surveyed all new mothers upon discharge from the hospital regarding receipt of safe sleep recommendations and baby's current sleep location
9) Developed and aired a PSA on temperature control
10) Recommended preliminary diagnosis of SIDS not be put on the death certificate until the autopsy is complete
11) Displayed a "Safe-Sleep Crib" (no bumper pads, no stuffed animals, no pillows, etc) at a Children's and Community Health Fair and WIC clinics
12) Recommended toxicology screens be completed on undetermined deaths

State Prevention Efforts

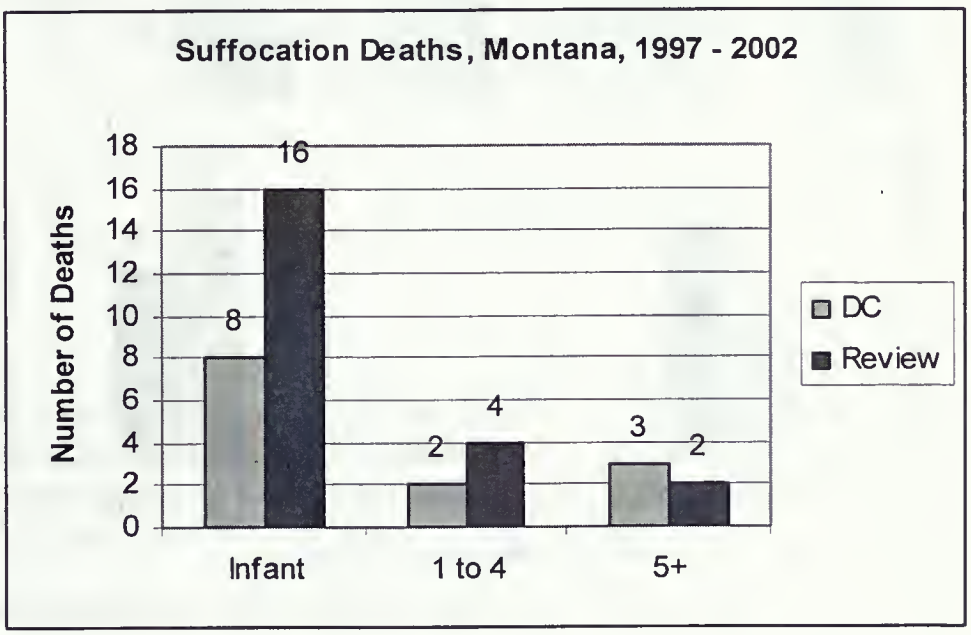
1) Distributed "Reducing the Risk of SIDS in Child Care" training kits to each Resource and Referral Agency
2) Secured CJ Grant funds, which partially funded a Native American Back to Sleep Campaign; included billboards, wall posters, pamphlets and tribal newspaper advertisements
3) The FICMR Program manager and Medical Examiner developed and mailed a letter to all coroners and law enforcement personnel requesting that they use a (provided) standardized death scene investigation form for all SIDS deaths
4) Administrative Rule change which requires registered day care providers to place infants to sleep on their backs, and in a safe sleep environment
5) Provided SIDS and Safe Sleep outreach materials to each Montana Alternative School
6) With SIDS funding from Safeway, provided 38 cribs to babies who did not have a safe sleep environment
7) Issued a statewide press release on thermal stress and over bundling of babies in the winter

SUFFOCATION

Three children's deaths could have been prevented

Key Findings:

- Thirteen deaths were coded on the death certificate as due to suffocation from 1997 through 2002.
- During that same six-year period, FICMR teams identified suffocation as the cause of death for 22 infant and child reviewed deaths. The majority of DC or reviewed suffocation deaths are infants (see graph below).
- FICMR teams identified the manner of death as "Undetermined" for eight of the reviewed infant suffocation deaths. (The death certificate cause of death was "Unknown" for five of the eight.)
- Although the numbers (even over six years) are small, Native American infants are at a greater risk of a suffocation death than white infants. Native American infants account for five of 16 deaths (31%), but only 12% of births in Montana are Native American.



The review teams determined the following regarding the 16 reviewed infant deaths:

- Six deaths occurred while an infant was sleeping with others.
- An additional three deaths identified "Other Person Lying or Rolling on Child."
- Three other reviews (plus one one-year old death) identified "bedding" as the cause of the suffocation, and plastic bags were identified as the cause of two deaths.
- One infant (and 3 toddlers) died due to choking on small objects.

State Team Prevention Efforts

- Issued a statewide press release on cars and heat suffocation

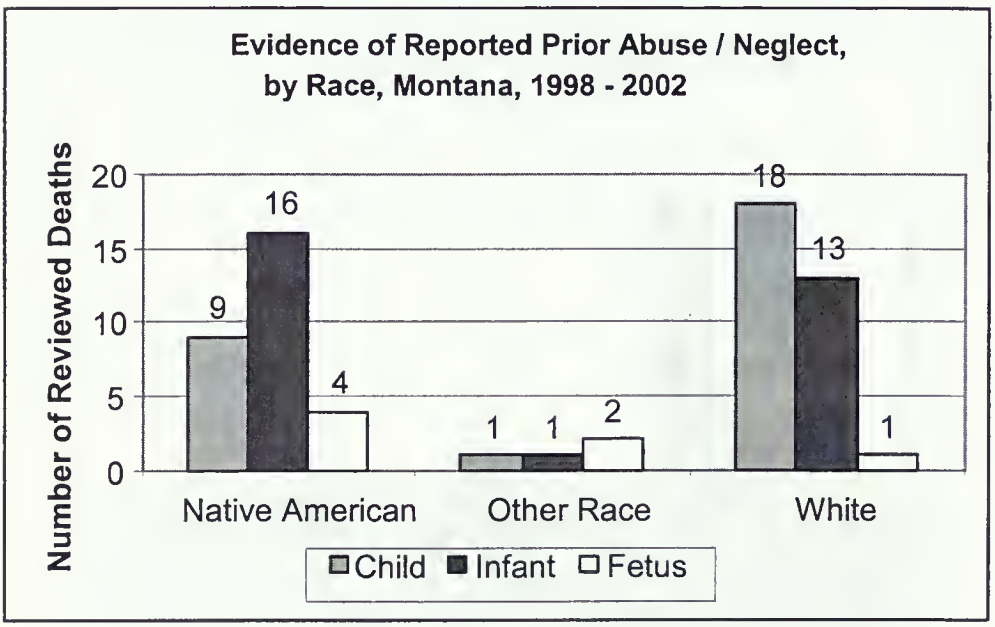
Eleven children's deaths could have been prevented

The FICMR teams report if they have identified "Evidence of Prior Abuse or Neglect" of the deceased infant or child and whether the report of abuse / neglect was substantiated.

Key Findings:

- The teams have identified 65 deaths with evidence of reported prior abuse / neglect since 1998.
- Twenty-nine of the decedents with reported prior abuse / neglect were Native American and 32 were white. However, the proportion of reviewed deaths with reported prior abuse / neglect is four times higher among Native Americans than among whites.

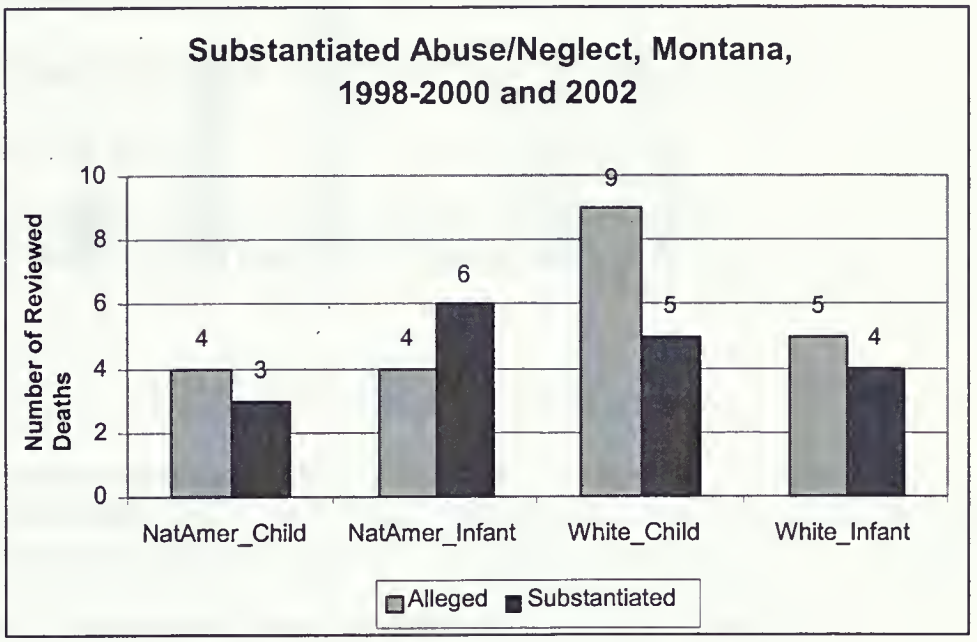
Note: Reported prior abuse or neglect may or may not be substantiated.



Approximately 10% of all reviewed deaths over the five-year period had evidence of prior abuse or neglect.

The review reporting form includes a question as to whether the reported abuse / neglect was substantiated.

- Twenty out of 48 reviews (with a response to the question) indicated that the report was substantiated.
- Substantiation varied slightly by race and age group.
- Two of the substantiated abuse deaths were Native American fetal deaths.



Preventability:

- FICMR teams determined that 11 of the 13 child deaths with prior child abuse and neglect (CAN) were preventable.
- Five infant deaths with prior CAN, coded "R99" (Unknown cause) on the death certificate were all determined to be preventable.

Local Community Recommendations/Interventions

1) Conducted parenting classes for parents and child care providers entitled "Common Sense Techniques for Challenging Parent/Child Interactions"
2) Recommended that mandatory reporters who don't report are referred to Department of Family Services for education
3) Provided a training for child care providers about recognizing and reporting child abuse and neglect

State Prevention Efforts

1) Thomas Bennett, MD, Pathologist and Director of Clinical Chemistry at St. Vincent's Health Care, provided a child abuse and neglect inservice to local FICMR coordinators at their semi-annual Local FICMR Coordinator meeting

MOTOR VEHICLE CRASHES

Thirty-eight children's deaths could have been prevented

Key Findings

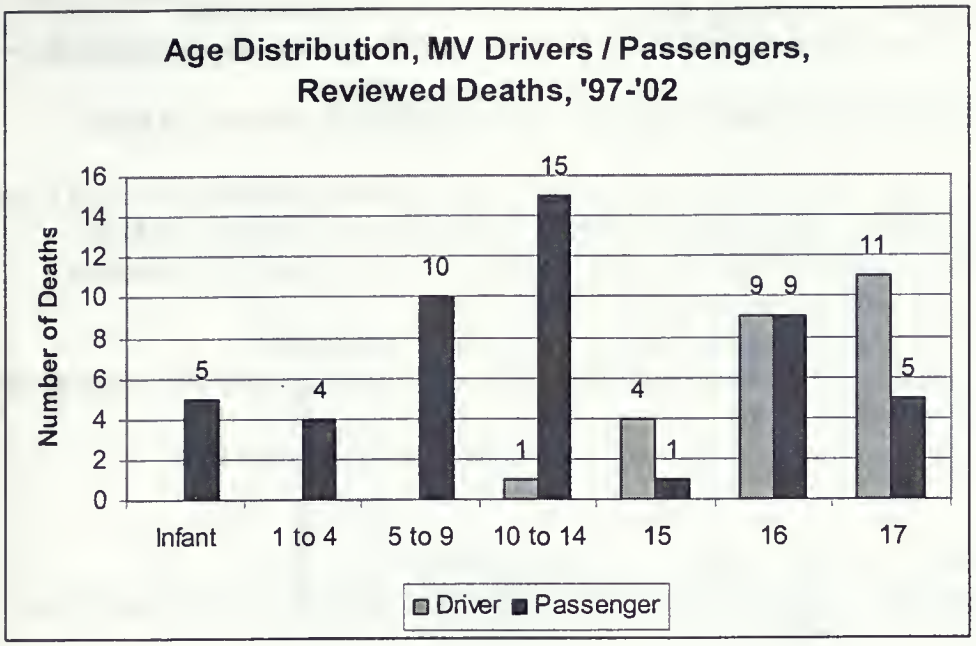
- Motor vehicle crashes (MVC) account for over half of the unintentional injury deaths of all infants and children.
- Death certificates identified 45 victims of motor vehicle incidents (these include boat, bicycle, and pedestrian deaths) in 2001 and 2002.
- FICMR teams reviewed 36 of these deaths and confirmed motor vehicle crash as the cause of death for these 36 reviewed.
- The FICMR teams identified five additional MVC deaths as a result of the review process. These 41 deaths include the 36 "congruent" deaths, two deaths with no linked death certificate, and three deaths with ambiguous data on cause of death.

The following results are based on the 41 reviews:

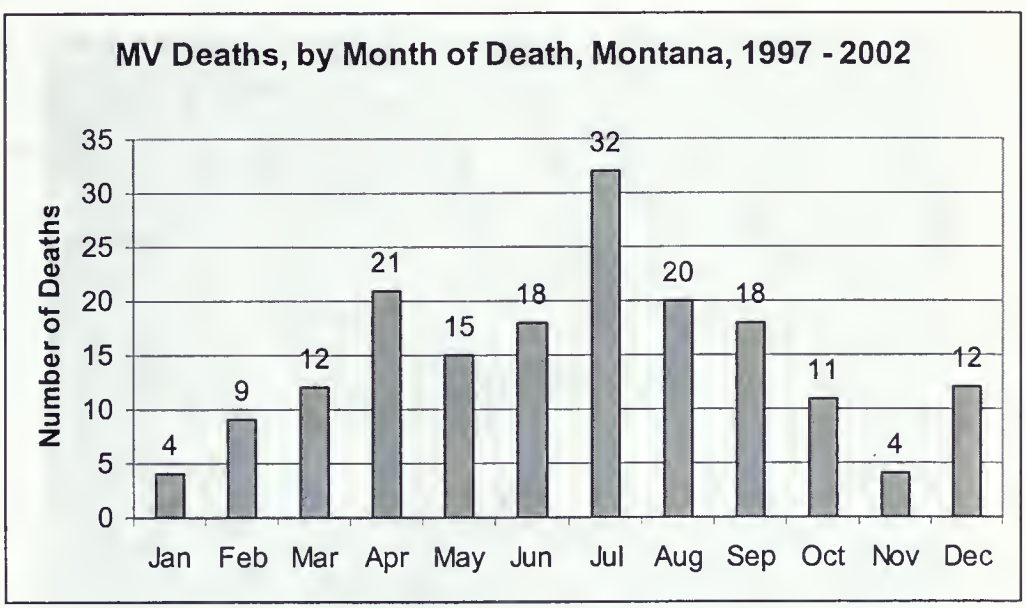
- ❖ The FICMR teams determined that 38 of the 41 deaths were definitely preventable.
- ❖ The two deceased infants were reported to have been in improperly used infant seats.
- ❖ Twenty-two of the deaths were reported to have been in vehicles where seat belts were present, but not used by the decedent.
- ❖ Fourteen decedents were judged to have been inadequately supervised, 12 were thought to have been adequately supervised, and 15 were missing information / left blank / unknown.
- ❖ The sex distribution of deaths was even (21 female / 20 male), but females were much more likely (9 out of 15) to be adequately supervised than males (3 out of 11).
- ❖ Toxicology screens were performed on nine of the deceased teen drivers, and one was positive for THC.
- ❖ Alcohol was identified as a factor in 4 deaths and "driver error" was cited in 25 fatal incidents.
- ❖ The passenger deaths were distributed over the age range (11 pre-teens and 13 teenagers), and the drivers ages were 15 and over (except for one 12-year old).
- ❖ There were eight fatalities among Native American youth and 33 among whites.

The contribution of teen drivers to the number of MVC is a concern among injury prevention workers, parents, and legislators. "Graduated" driver's licenses and other approaches are intended to reduce the loss associated with these inexperienced drivers.

- The 14 driver fatalities in 2001 and 2002 included 12 youth ages 15 to 17 (the other two were 12 and 18).
- The 2002 data also identify the "Number of (other) teen passengers in the car causing the death". Six of the 10 2002 driver fatalities indicated no other teens in the vehicle; one each checked "One", "Two", and "Three or more" (One was left blank).
- The 2002 data also included a "Time of Day" for the incident. Six driver deaths occurred in the "6 am to 6 pm" time period, two from "6 pm to midnight", and two were left blank.
- There was a teenage driver indicated in four of the passenger deaths in 2001 and 2002.



Twenty-five motor vehicle fatalities of teen drivers have been reviewed since the start of the Montana FICMR program (1997). Ten of the victims were identified as driving cars, and nine driving "Truck/RV". The road conditions were identified as "Normal" for 15 of the incidents, "Gravel" for three and "Ice/Snow" for three. Driver error was identified as a cause for 16 of the crashes, and speeding was also a factor for four of those 16 fatalities. There was a seatbelt present and not used for 13 of the driver fatalities.



Infant and child MV fatalities are over twice as likely to occur in the Spring and Summer months (April to September) as in the Fall and Winter (October to March). Seventy percent of the reported deaths from death certificate data in the six-year period occurred in the April – September period.

Local Community Recommendations/Interventions

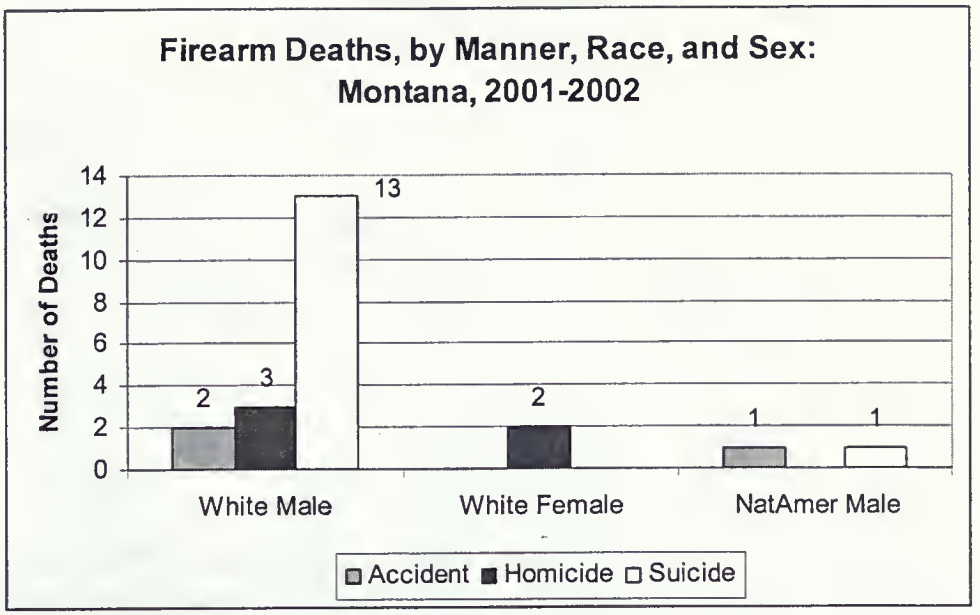
1) Researched information regarding 15 passenger vans and sent letter of information and recommendation to local daycares, children's camps, YMCA, church groups, etc
2) Implemented a local car seat program and car seat check-up events. Partnered with Safe Kids/Safe Communities and gave car seats to families who could not afford them

3) Traffic lights installed and speed limit changed on a rural road to reduce traffic speed
4) Worked cooperatively with schools and distributed 6000 safety sheets about children riding in the front seat with airbags
5) Made a recommendation to Montana Highway Patrol to order toxicology screens on all motor vehicle crashes
6) Partnered with Safe Kids/Safe Communities to raise awareness of benefit of seat belt use—did a seat belt surveillance at the local high school with awards to students who were wearing seat belts
7) Sponsored a bicycle helmet Easter Basket event and sold approximately 100 bike helmets with Easter goodies—many local merchants donated items to this event
8) Sponsored a drinking and driving educational seminar to educate tavern owners
9) Worked with law enforcement to hand out car seat information to drivers who they stopped, and who did not have adequate car seats for children
10) Re-routed semi truck traffic to a separate exit away from a convenience store entrance

State FICMR Prevention Efforts

1) Supported Graduated Drivers Licensing legislation. Legislation failed.
   Legislation will be introduced by Dept. of Justice in 2005 legislative session, and supported by the local and State FICMR teams

Nine children's deaths could have been prevented



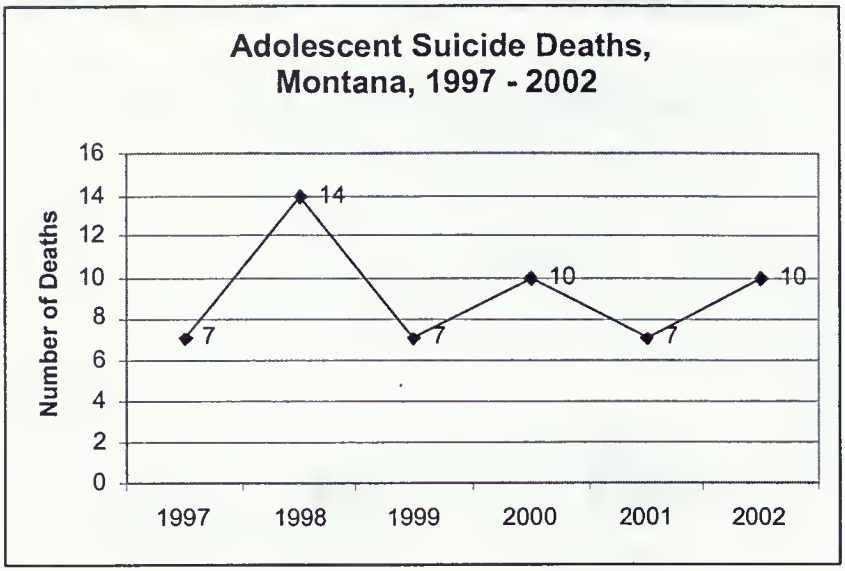
Key Findings:

- Firearms result in the deaths of about 12 children every year in Montana. (70 deaths in six years.)
- A majority of these deaths (40) are suicides.
- The FICMR teams reviewed 18 of the 22 firearm deaths in 2001 and 2002.
- A team reclassified a death coded on the death certificate as accidental to suicide. Otherwise, the team concurred with the death certificate – one accidental death, three homicides, and 14 suicides by firearms.
- One accident, two homicides, and one suicide were not reviewed.
- Nine rifles, five handguns, and three shotguns were involved in the eighteen deaths (the firearm was not specified in one review).
- None of the firearms were reported to have been stored in a locked cabinet, although seven reviews stated "Unknown" for storage status.
- An older family member committed all of the three reviewed homicides, and the shooter for the one reviewed accidental death was a friend.
- The teams determined that nine deaths were definitely preventable – one accident, one homicide, and seven suicides.

State FICMR Prevention Efforts

1) Distributed "gun safety" educational materials to county health departments to be utilized in a gun safety campaign aimed at primary care providers. Primary care providers were asked to inquire about the presence of guns in the homes and distribute gun safety information at all well child visits
2) Distributed a statewide gun safety press release to coincide with hunting season

Nine children's deaths could have been prevented



The FICMR teams reviewed 16 of the 17 reported suicides in 2001 and 2002. The teams concurred with the suicide determination for all 16 of the reviewed deaths. In addition, one team determined that a death reported on the death certificate as an accidental firearm death was a suicide. The following results are based on the 17 reviewed deaths in 2001 and 2002 that were determined to be suicides.

Key Findings:

- On average, nine adolescent suicides are reported each year in Montana (55 from 1997 through 2002). Fifteen of those suicides were committed by a male using a firearm, and only two of the suicide victims were female.
- The FICMR teams determined that nine of the suicides were definitely preventable. (There was not enough information on three of the suicides to determine whether – or how – the suicide could have been prevented.) Three suicides with adequate information were reported as undetermined as to prevention, and two were judged not preventable.
- Evidence of prior abuse or neglect was only identified for one suicide victim, but "Unknown" was checked for nine of the 17 deaths.
- Fourteen of the suicides took place in the decedent's home.
- Of the 13 suicides in which firearms were used, eight involved a rifle, three involved a shotgun and two involved a handgun.
- Prior mental health problems were identified for three of the victims, and two of those (plus one other) had received mental health services.
- The teams identified six of the 11 suicides in 2002 as completely unexpected.

Local Community Recommendations/Interventions

1) Convinced the county Coroner to order toxicology screens on all child suicides
2) Aired a PSA on suicide in three Montana communities
3) Investigating the use of a "psychological autopsy" for all suicide deaths
4) Provided QPR training sessions at college campus, hospitals, and schools
5) Enhanced Yellow Ribbon Campaign activities in local schools

State FICMR Prevention Efforts

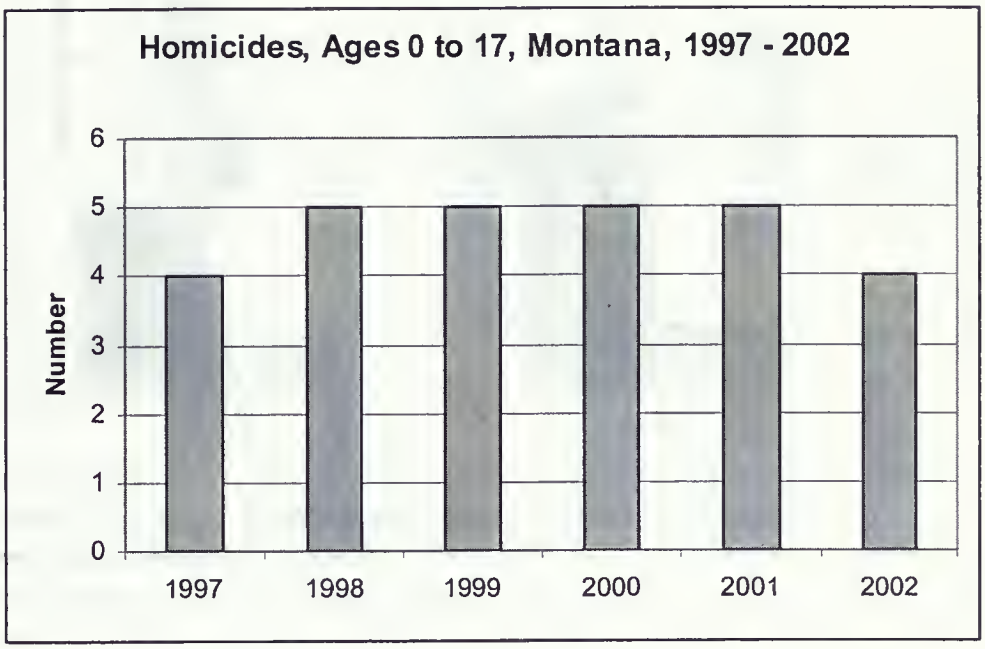
1) Received funding from the Governor's Office for youth suicide prevention efforts; gave suicide mini grants to 3 FICMR counties and 1 tribal organization

HOMICIDE

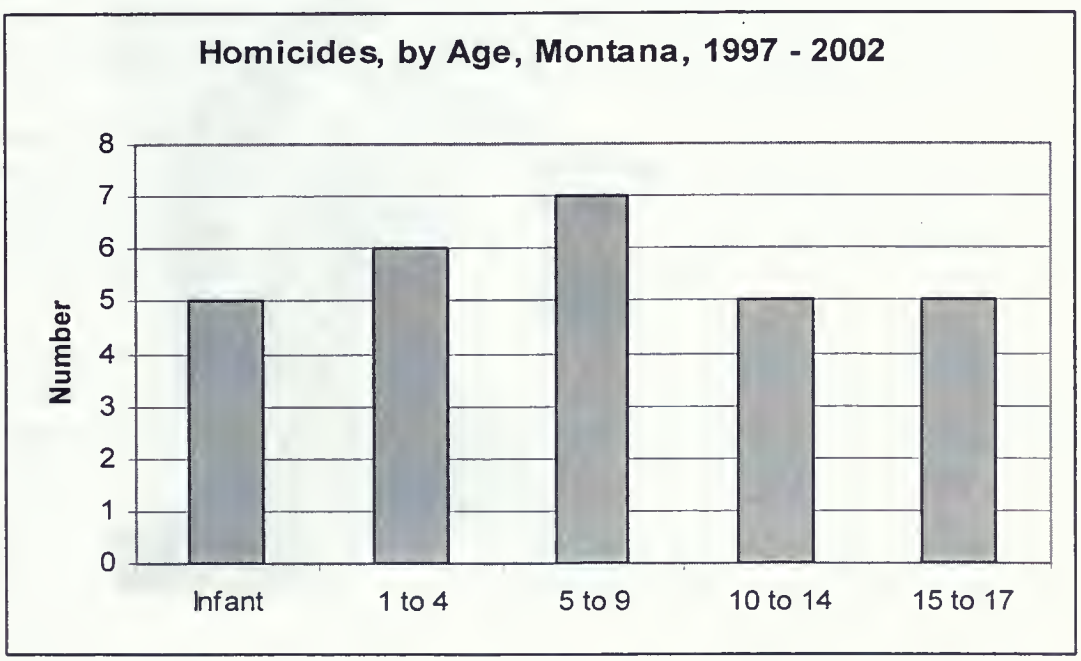
Five children's deaths could have been prevented

Key Findings:

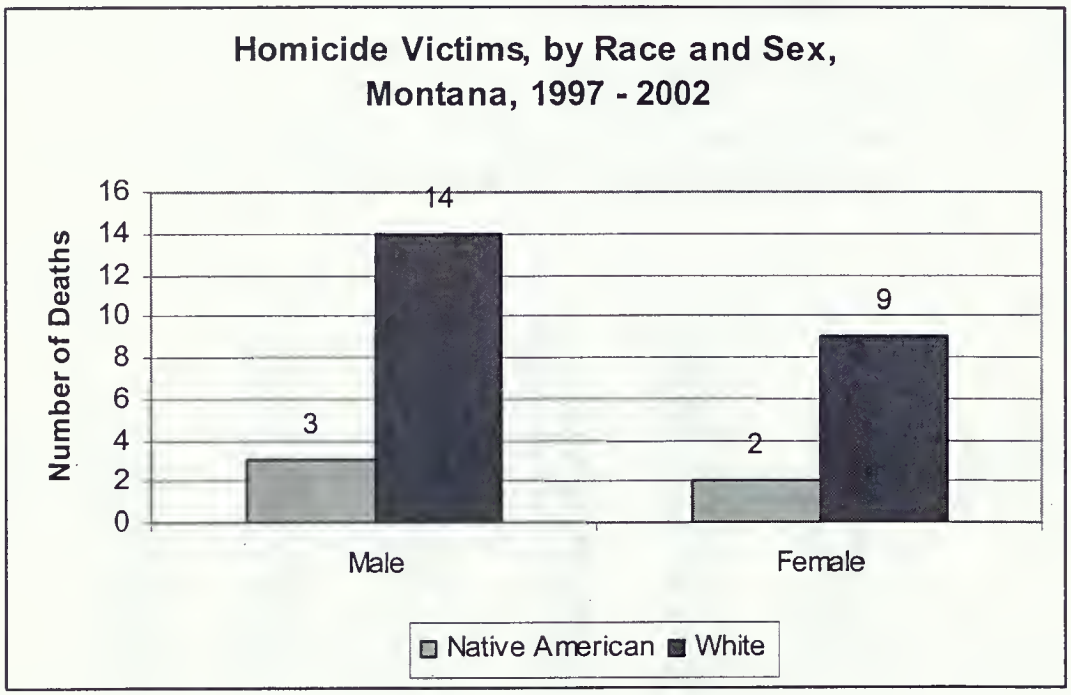
- There have been approximately five homicides of infants and youth in Montana every year for the past six years.
- Fifteen of the 28 deaths resulted from firearms.



- Homicides are distributed across all race, age, and sex groups, but a large number of innocent victims (9) were less than 2 years old.

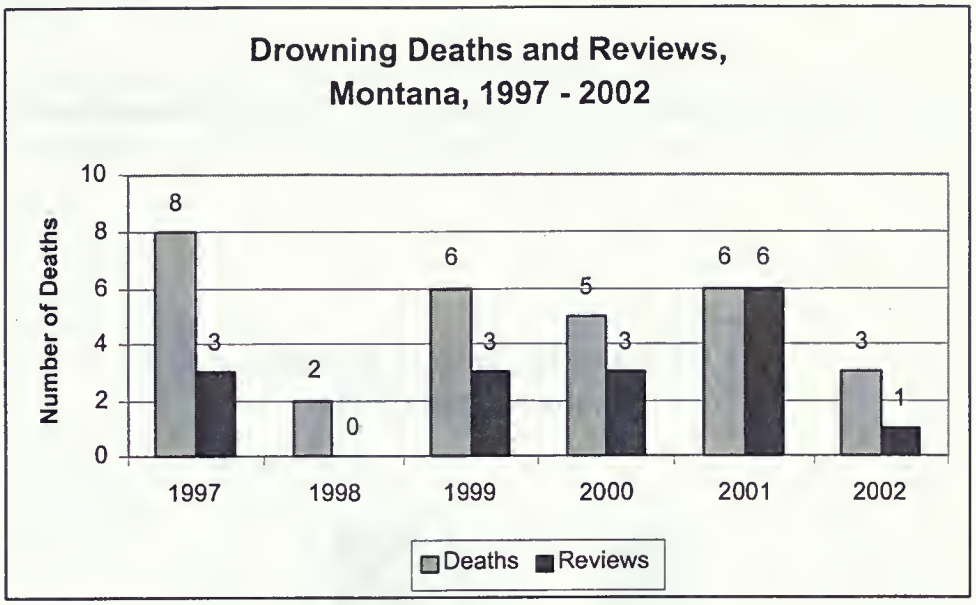


- Six of the nine homicides in 2001 and 2002 were reviewed by FICMR teams, and one team determined that a motor vehicle fatality (on the death certificate) was a homicide.
- The teams determined that five of the homicides (including the vehicular homicide) were definitely preventable.
- Two of the victims had evidence of prior abuse or neglect.



DROWNING

Seven children's deaths could have been prevented



Key Findings: (Years 1997 – 2002)

- There was an average of five infant / child deaths due to drowning each year from 1997 through 2002.
- Fourteen of the 30 deaths in the six years were toddlers ages 1 through 4.
- Three infants were reported as drowning in a bathtub.
- Eight of the 30 drowning victims were Native American, one was Asian, and the remaining 21 were White.

The sixteen reviews provide the following information on the circumstances of the drowning deaths:

- Eight of the 16 reviewed deaths occurred in a natural body of water (lake, river, or pond).
- Six deaths occurred in swimming pools, and five of the victims were toddlers one or two years old.
- Only one child (out of fourteen responses) was reported as wearing a flotation device.
- One of ten reviews with a response indicated that alcohol or other drugs were involved.

Local Community Recommendations/Interventions

1) Recommended to State FICMR Team that hotel/motel pool standards be changed so that indoor pools are enclosed with access only by room keys
2) Collaborated with the local Search and Rescue organization, who gave water safety classes to the town's children

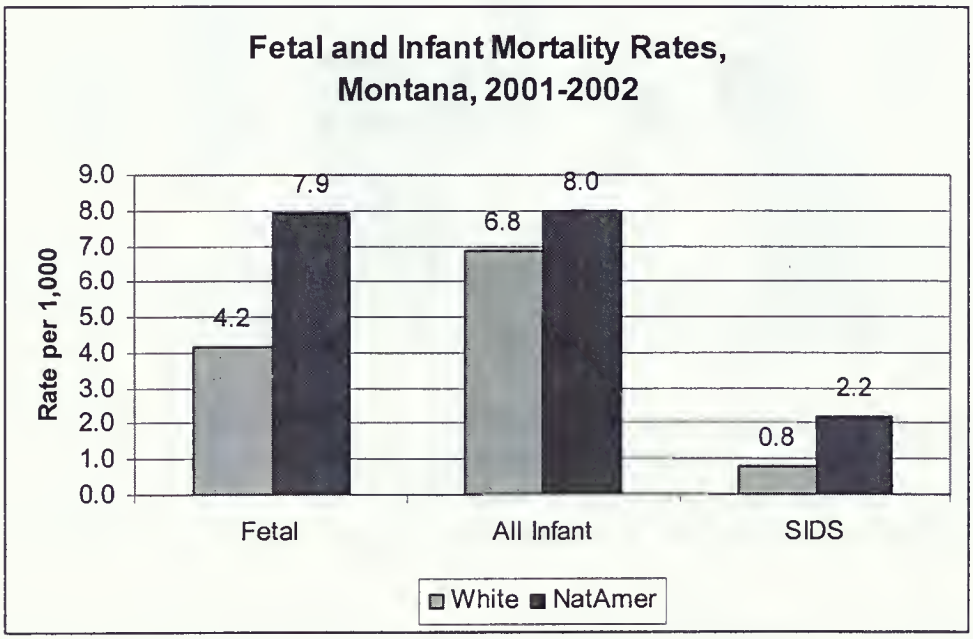
State Team Prevention Efforts

1) Recommended to the Food, Consumer and Safety Section of the Department of Public Health and Human Services a rule change that would mandate hotel/motel indoor pools be enclosed with access only by room key. Rule change in process

RACIAL DISPARITIES IN MONTANA FIC DEATHS

12.5% of the births in Montana were Native American, yet 17% of the statewide fetal/infant deaths and 18% of child deaths were of Native American children.

A Native American woman in Montana was almost twice as likely as a white woman to lose a fetus (Relative risk, 2001 – 2002, 1.9). A child or adolescent is also more likely to die if he/she is Native American. There is also an increased risk of infant death, but the difference is not as great for infants as for fetal or child deaths.



Although the total number of deaths is small, the risk of SIDS is over 2.5 times greater for Native American infants than for white infants. "While SIDS may occur more often in Indian communities – it is not because the parents or child was Indian, it is because the factors that contribute to lowered health status exist throughout our society but disproportionately in Indian communities and other disadvantaged populations."[1]

"Public health nurse visits, maternal alcohol use during the periconceptional period and first trimester, and layers of clothing are important risk factors for SIDS among Northern Plains Indians. Strengthening public health nurse visiting programs and programs to reduce alcohol consumption among women of childbearing age could potentially reduce the high rate of SIDS." [2]

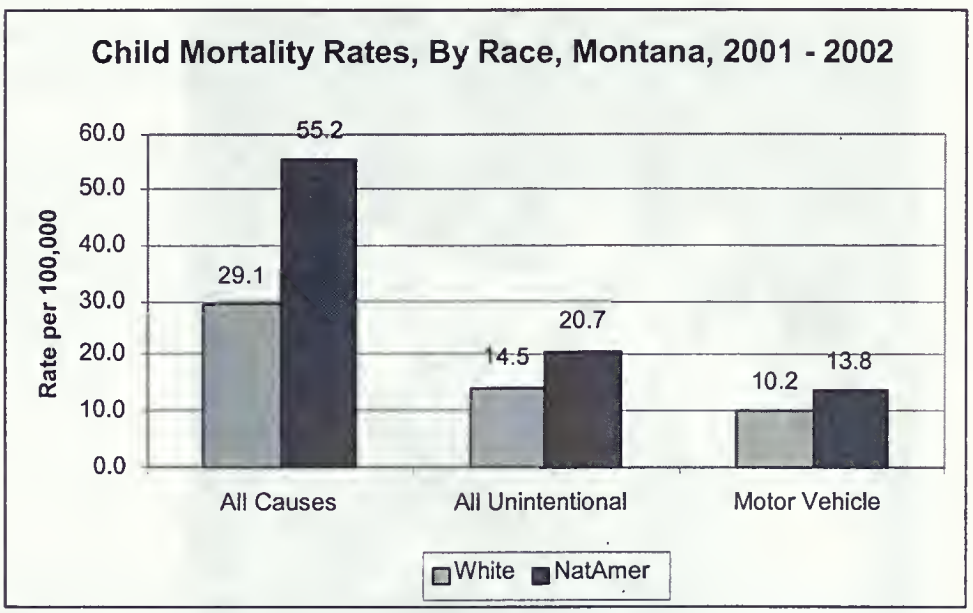
1 U.S. Department of Indian Health and Human Services; Aberdeen Area Infant Mortality Study

2 JAMA; *Solomon Iyasu, MBBS, MPH; Leslie L. Randall, RN, MPH; Thomas K. Welty, MD; Jason Hsia, PhD; Hannah C. Kinney, MD; Frederick Mandell, MD; Mary McClain, RN, MS; Brad Randall, MD; Don Habbe, MD; Harry Wilson, MD; Marian Willinger, PhD*

The majority of all infant deaths are attributable to medical causes such as SIDS, congenital malformations, or premature delivery and/or low birth weight. Although there are known risk factors for some of these causes (e.g., prone sleeping position for SIDS, maternal smoking during pregnancy for low birth weight), deaths due to medical causes are frequently determined to be "not preventable" by review teams. A higher proportion of reviewed Native American than white infant deaths in 2001 and 2002 was determined to be preventable.

Preventability of Reviewed Infant Deaths, by Race, Montana, 2001-2002

	White	Native American	Other
Inadequate Information	8	4	1
Preventable?			
Yes	15	8	2
No	57	1	2
Undetermined	9	8	1
Percent Preventable	18.5	47.1	



OTHER COMMUNITY RECOMMENDATIONS/INTERVENTIONS

1) Added Edinburgh Post Partum Depression Scale to neighborhood nursing post partum assessment

2) Recommended first responders have access to grief resources for family members

3) Provided March of Dimes bereavement packets to local hospitals, Tribal Health Nurses, and local health department

4) Provided a free copy of The Nursing Mother's Companion, 4th Edition, to any pregnant woman/new mother interested in breastfeeding

5) Requested a local ER to take x-rays on all incoming children with endotracheal tubes for accurate placement

6) Recommended a hospital policy change that would mandate the pediatrician or neonatologist examine a fetal demise that is not having an autopsy, before it goes to the morgue

7) Recommended a hospital policy change to require a toxicology screen be completed on all unexplained pregnancy abruptions

8) Recommended toxicology screens be completed on undetermined deaths

ACCOMPLISHMENTS

- Reviewed 81% of all fetal, infant and child deaths for years 2001 and 2002. This is an increase of 32% from the 1997-2000 report
  - → 2000 Reviewed 62%
  - → 2001 Reviewed 74%
  - → 2002 Reviewed 86%
- Expanded FICMR reviews to 53 (of 56) counties and 6 (of 7) Indian Reservations
- Briefed Governor Judy Martz on the findings from the 1997-2000 FICMR report
- Improved the FICMR reporting tool to enhance identification of factors associated with fetal, infant and child deaths
- Developed a FICMR data release policy
- Developed a FICMR list serve to provide a mechanism for local coordinators and state team members to net-work and problem solve
- Implemented changes to the State FICMR governance document to allow expanded State Team membership and expand the State Chair term from one to two years
- Improved ability to access death certificates by adding the death certificate number to the Vital Statistics Quarterly Mortality Report
- Improved FICMR data reliability by completing a statewide mock case review

CHALLENGES

- Ensuring community action for FICMR recommendations
- Guaranteeing that public education concerning child health, safety and accident prevention is readily accessible
- Obtaining funding to support infrastructure and prevention efforts at the local and state level
- Achieving use of a standardized death scene investigation form for all sudden, unexpected infant deaths
- "SIDS" versus "asphyxia" versus "undetermined" deaths. Some coroners assign a diagnosis of suffocation or asphyxia secondary to overlying if the infant was bedsharing, even with no confirmation that overlying occurred. Others classify bedsharing deaths as "undetermined", thereby avoiding classifying any bedsharing deaths as SIDS. This issue makes the data on infant deaths very questionable with regard to accuracy, and difficult to compare
- Completing analysis of FICMR data without a linked birth/death file

PLANS

- Continue to promote prevention efforts at the local and state level
- Seek funding sources to support local and state prevention efforts
- Secure participation from non-participating counties and reservation
- Continue to provide bi-yearly meetings and training to local FICMR coordinators
- Continue to pursue adequate and sustainable resources for the State and local FICMR review process
- Link Montana's birth/death file for population based analysis capability

APPENDIX A

Tables

Table 1

Summary of Prevention Findings

	1997 - 2000 Prevention Determination			2001 - 2002 Prevention Determination		
	Definitely	Not at All	% Preventable	Definitely	Not at All	% Preventable
Child Deaths						
Natural	9	28	24.3	2	25	7.4
Accident	64	4	94.1	49	2	96.1
Suicide	12	0	100.0	9	3	75.0
Homicide	12	0	100.0	4	2	66.7
Undetermined				1	1	50.0
Infant Deaths						
Natural	14	81	14.7	10	61	14.1
Accident	9	0	100.0	2	2	50.0
Homicide	4	0	100.0	1		100.0
Undetermined	9	3	75.0	11		100.0
Fetal Deaths						
Natural	7	74	8.6	1	42	2.3
Accident					1	0.0
Undetermined				3	17	15.0
Summary						
Natural	30	183	14.1	13	128	9.2
Accident/Violence	101	4	96.2	65	10	86.7

Table 2

Fetal, Infant, and Child Deaths and Reviews, Montana, 1997 - 2002

	Child	Infant	Fetus	Total
Deaths				
1997	88	73	49	210
1998	67	82	76	225
1999	78	71	62	211
2000	101	63	55	219
2001	63	73	43	179
2002	70	81	61	212
Total	467	443	346	1,256
Reviews				
1997	22	33	14	69
1998	28	44	35	107
1999	37	46	33	116
2000	55	40	40	135
2001	48	48	36	132
2002	64	68	52	184
Total	254	279	210	743
Proportion Reviewed				
1997	25.0	45.2	28.6	32.9
1998	41.8	53.7	46.1	47.6
1999	47.4	64.8	53.2	55.0
2000	54.5	63.5	72.7	61.6
2001	76.2	67.1	83.7	73.7
2002	91.4	84.0	85.2	86.3
Total	54.4	63.0	60.7	59.2

Table 3

FIC Deaths and Reviews, by Age, Montana

Age at Death	1997 - 2000 All Deaths	1997 - 2000 Reviewed Deaths	1997 - 2000 Percent Reviewed	2001 - 2002 All Deaths	2001 - 2002 Reviewed Deaths	2001 - 2002 Percent Reviewed
Fetus	242	122	50.4	104	88	84.6
< 24 Hrs	82	45	54.9	46	31	67.4
24 - 48 Hrs	16	11	68.8	17	11	64.7
2 - 27 Days	62	31	50.0	36	28	77.8
28 - 180 Days	91	55	60.4	39	33	84.6
81 - 364 Days	38	21	55.3	16	13	81.3
Infants (All)	289	163	56.4	154	116	75.3
1 - 4 Yrs	71	34	47.9	27	17	63.0
5 - 9 Yrs	45	23	51.1	32	24	75.0
10 - 14 Yrs	72	27	37.5	25	25	100.0
15 - 17 Yrs	146	58	39.7	49	46	93.9
Children (All)	334	142	42.5	133	112	84.2

Table 4

Infant and Child Deaths by Manner of Death

	1997 - 2000 All Deaths		1997 - 2000 Reviews		2001 - 2002 All Deaths		2001 - 2002 Reviews	
	Child	Infant	Child	Infant	Child	Infant	Child	Infant
Natural	240		41	127	39	130	29	93
Accident	17		71	12	64	5	56	5
Suicide			17		17		17	
Homicide	4		12	4	8	1	6	1
Unknown	26		1	20	5	18	4	17
Pending	2							
	289		142	163	133	154	112	116

	% Reviewed		% Reviewed	
	Child	Infant	Child	Infant
Natural	52.9		74.4	71.5
Accident	70.6		87.5	100.0
Suicide			100.0	
Homicide			75.0	
Unknown	76.9			94.4
Totals	56.4		84.2	75.3

Table 5

Fetal and Infant Deaths, by Race, Gender, and Age, Montana, 2001 - 2002

		Infant: Age in Days						
		Fetal	0 to 6	7 to 27	28 to 364	Total	Reviews	% Reviewed
White								
	Male	42	36	7	17	102	83	81.4
	Female	36	33	10	25	104	74	71.2
	Unknown	1	1			2	3	
Native American								
	Male	14	8		8	30	21	70.0
	Female	8	1	1	4	14	15	
Other								
	Male	2	2		1	5	4	
	Female	1				1	4	
	Totals	104	81	18	55	258	204	79.1

Table 6

Montana Demographics and FICMR Summary, 2001 - 2002

			Fetal/Infant		Child (1 - 17)		Mortality Rates	
	Births	Pop, 1 - 17	Deaths	Reviews	Deaths	Reviews	F/I (/1000)	Child (/100000)
Total	21,991	422,536	258	204	133	112	11.7	31.5
White	18,858	371,699	208	160	108	89	11.0	29.1
Native American	2,756	43,443	44	36	24	19	15.8	55.2
Other	377	7,394	6	8	1	4	15.8	
% Native American	12.5	10.3	17.1	17.6	18.0	17.0		

Table 7

Fetal and Infant Death Rates, Montana, 1997 - 2002

	All Races	White	Native American	Other	NatAmer Proportion
Births					
1997	10,840	9,391	1,290	159	11.9
1998	10,791	9,451	1,172	168	10.9
1999	10,779	9,354	1,274	151	11.8
2000	10,946	9,438	1,326	182	12.1
2001	10,946	9,391	1,363	192	12.5
2002	11,045	9,467	1,393	185	12.6
Total	65,347	56,492	7,818	1,037	12.0
Deaths (2001 - 2002)					
Fetal	104	79	22	3	21.2
Neonatal	99	87	10	2	10.1
Postneonatal	55	42	12	1	21.8
Total	258	208	44	6	17.1
Deaths (1997 - 2000)					
Fetal	242	203	33	6	13.6
Neonatal	160	128	28	4	17.5
Postneonatal	129	98	29	2	22.5
Total	531	429	90	12	16.9
Rate (per 1,000)	**2001 - 2002**				
Fetal	4.7	4.2	7.9		
Neonatal	4.5	4.6	3.6		
Postneonatal	2.5	2.2	4.4		
	1997 - 2002				
Fetal	5.3	5.0	7.0		
Neonatal	4.0	3.8	4.9		
Postneonatal	2.8	2.5	5.2		
Deaths (1997 - 2002)					
Fetal	346	282	55	9	15.9
Neonatal	259	215	38	6	14.7
Postneonatal	184	140	41	3	22.3
Total	789	637	134	18	17.0

Table 8

Montana Infant and Child Deaths and Reviews, by Cause of Death, 2001 - 2002

Death Certificates	Child Age in Years						Reviewed Deaths	Child Age in Years				
Cause	Infant	1 to 4	5 to 9	10 to 14	15 to 17	Totals	Infant	1 to 4	5 to 9	10 to 14	15 to 17	Totals
Drowning	1	3	1	1	3	9	1	4	1	1	2	9
Falls	1					1				1		1
Firearm			1	1	1	3				1		
Vehicle	1	4	8	10	22	45	1		4	9	22	36
Other			1	2	1	4	2	1	2	2		7
Poison			3		1	4			3		1	4
Suffocation	2	1				3	1	1		1		3
Subtotal	5	8	14	14	28	69	5	6	10	15	25	61
Homicide	1	3	3	2		9	1	1	3	2		7
Suicide				3	14	17				3	14	17
Unk Intent				1		1						
SIDS	20					20	31					31
Natural	110	14	14	5	6	149	72	9	10	4	6	101
Unknown	18	2	1		1	22	7	1	1	1	1	11
Totals	154	27	32	25	49	287	116	17	24	25	46	228

Injury / Violent Deaths:
Infants and Children (< 18), Montana, 2001 - 2002

Table 9

All Unintentional Injury Deaths

Race	Gender	Child Age in Years					
		Infant	1 to 4	5 to 9	10 to 14	15 to 17	Totals
White							
	Male	2	3	8	6	14	33
	Female	1	4	4	5	10	24
Native American							
	Male		1	2	2	3	8
	Female	2			1		3
Other							
	Male					1	1
	Totals	5	8	14	14	28	69

Table 10

All Motor Vehicle Crash Deaths

Race	Gender	Child Age in Years					
		Infant	1 to 4	5 to 9	10 to 14	15 to 17	Totals
White							
	Male		2	3	5	10	20
	Female		2	3	4	9	18
Native American							
	Male			2		3	5
	Female	1			1		2
	Totals	1	4	8	10	22	45

Table 11

Adolescent Suicide

Race	Gender			
		10 to 14	15 to 17	Totals
White				
	Male	2	12	14
	Female	1	1	2
Native American				
	Male		1	1
	Totals	3	14	17

Table 12

Firearm Deaths, Montana, 1997 - 2002

By Year and Manner of Death

Year	Accident	Homicide	Suicide	Unknown Intent	Totals
1997	3	3	4		10
1998	2	2	9		13
1999	4	2	6		12
2000	2	3	7	1	13
2001	1	3	6		10
2002	2	2	8		12
Total	14	15	40	1	70

By Age and Manner of Death

	Child Age in Years					
	Infant	1 to 4	5 to 9	10 to 14	15 to 17	Totals
2001 - 2002						
Accident			1	1	1	3
Homicide		1	2	2		5
Suicide				2	12	14
Totals		1	3	5	12	22

	Child Age in Years					
	Infant	1 to 4	5 to 9	10 to 14	15 to 17	Totals
1997 - 2002						
Accident			3	6	5	14
Homicide	1	1	4	5	4	15
Suicide				14	26	40
Unk Intent				1		1
Totals	1	1	7	26	35	70

Table 13

Total FIC Deaths, by County of Residence, by Year of Death

County	1997	1998	1999	2000	2001	2002	Total
Beaverhead	2	3	3	4	3	1	16
Big Horn	7	5	7	9	8	4	40
Blaine	1	5	4	4	1	2	17
Broadwater	2	2	1		1	1	7
Carbon	2	5	2	1	2	3	15
Cascade	18	24	23	27	20	19	131
Chouteau	2		1	1			4
Custer	1	2	2	4	2	3	14
Daniels	1				1		2
Dawson	1	1	2	2	2		8
Deer Lodge	5	3	2	1	1	2	14
Fallon		1				2	3
Fergus	2	3	3	8	1	1	18
Flathead	20	19	18	14	10	18	99
Gallatin	7	11	4	17	7	12	58
Garfield		1					1
Glacier	8	8	9	5	4	6	40
Granite			1	1			2
Hill	5	8	6	5	4	3	31
Jefferson	3		1	1		1	6
Judith Basin		3					3
Lake	6	11	11	9	9	10	56
Lewis & Clark	7	20	16	6	9	15	73
Liberty	1		1		2		4
Lincoln	4	5	5	5	3	7	29
Madison	3	2	1	2			8
Mccone					1		1
Meagher	1	2		2		2	7
Mineral			3	1	2		6
Missoula	17	14	15	24	9	22	101
Musselshell	4	2	2	3		1	12
Park	4	1	5	5	5	2	22
Petroleum	1						1
Phillips	1	1	3		1	4	10
Pondera	2	2	2	2	4	2	14
Powder River	2	2					4
Powell	1		2		2	2	7
Prairie				1			1
Ravalli	5	5	4	6	8	13	41
Richland	1	1	2	3	4		11
Roosevelt	6	2	6	3	5	6	28
Rosebud	7	3	5	8		8	31
Sanders	3	1	1	2	1	3	11
Sheridan		4			2		6

County	1997	1998	1999	2000	2001	2002	Total
Silver Bow	7	7	5	4	3	5	31
Stillwater	1	2	2	1		1	7
Sweet Grass				3	1		4
Teton	2	2	1		1		6
Toole	1		1	2		1	5
Valley	4	2	4		1	3	14
Wheatland	2			1	1		4
Yellowstone	30	30	25	22	38	26	171
Not Stated						1	1
Totals	210	225	211	219	179	212	1256

Table 14

Reviews, by Year, by Counties of Residence and Review

County	By Residence County 2001	By Residence County 2002	By Review County 2001	By Review County 2002
Beaverhead	3	1	4	1
Big Horn	7	5	7	11
Blaine		1		1
Broadwater		1		1
Cascade	16	20	16	20
Custer	2	3	2	3
Daniels	1		1	
Fergus	1	1	1	1
Flathead	9	19	10	21
Gallatin	7	11	7	11
Glacier		3		3
Hill	4	2	6	2
Jefferson		1		1
Lake	8	8	8	8
Lewis & Clark	9	13	9	14
Liberty	1			
Lincoln	3	8	3	7
Meagher		1		1
Mineral	1		1	
Missoula	8	22	8	23
Park	5	2	5	2
Phillips	1			
Pondera	4		4	
Powell	1			
Ravalli	4	12	4	12
Richland	4		4	
Roosevelt	5	6	6	6
Rosebud	1	5		
Sanders	1	2		2
Sheridan	1		1	
Silver Bow	1	4	1	4
Stillwater		1		1
Sweetgrass	1		2	1
Teton	1		1	
Valley	1	2		2
Yellowstone	21	26	21	25
Out-of-State		4		
Totals	132	184	132	184

Table 15

Region Summary

	1997 - 2000 Total	White	NA	2001 - 2002 Total	White	NA
Population, Ages < 18				**Births + Population 1 to 17**		
Eastern	22,204	16,848	4,605	10,711	8,473	2,163
North Central	39,810	29,735	7,860	18,326	14,221	3,799
South Central	48,416	40,659	4,886	22,265	19,586	2,328
South Wester	53,610	50,370	1,015	25,067	24,119	605
North Westen	66,022	59,087	3,716	32,053	29,578	2,007
FIC Deaths				**FIC Deaths**		
Eastern	89	55	33	45	26	18
North Central	183	125	55	69	43	25
South Central	188	151	33	87	70	15
South Wester	177	171	4	74	71	2
North Western	228	204	20	115	105	8
Ratio, FIC Deaths per 1,000 Population				**Ratio**		
Eastern	4.0	3.3	7.2	4.2	3.1	8.3
North Central	4.6	4.2	7.0	3.8	3.0	6.6
South Central	3.9	3.7	6.8	3.9	3.6	6.4
South Wester	3.3	3.4	3.9	3.0	2.9	3.3
North Western	3.5	3.5	5.4	3.6	3.5	4.0

Reviews

	Total Deaths	County Review	Residence	Percent Reviewed	Total Deaths	County Review	Residence	Percent Reviewed
Eastern	89	25	27	30.3	45	25	32	71.1
North Central	183	74	74	40.4	69	53	52	75.4
South Central	188	92	91	48.4	87	70	63	72.4
South Wester	177	84	82	46.3	74	61	60	81.1
North Western	228	152	150	65.8	115	107	105	91.3
Total	865	427	424	49.0	390	316	312	80.0

Table 16

Montana Infant Mortality Rate (deaths / 1,000 births)

By Race, by Year

Race	1997	1998	1999	2000	'97 - '00	2001	2002	'97 - '02
White	5.9	7.2	5.8	5.2	6.0	6.7	7.0	6.3
Native Americai	13.2	9.4	12.6	9.8	11.3	7.3	8.6	10.1
All Races	6.7	7.6	6.6	5.8	6.7	6.7	7.3	6.8

By Region, by Race

1997 - 2000

Health Planning Region	White	Native American	All Races
Eastern	2.8	12.1	5.2
North Central	7.3	10.7	8.1
South Central	7.7	10.2	8.2
South Western	4.4	8.3	4.4
North Western	6.4	N/A	6.9
Total	6.0	11.3	6.7

2001 - 2002

White	Native American	All Races
6.3	11.6	8.0
5.7	9.4	6.5
8.3	N/A	7.8
6.7	N/A	6.4
6.6	N/A	6.9
6.8	8.0	7.0

1997 - 2002

Health Planning Region	White	Native American	All Races
Eastern	3.8	11.9	6.1
North Central	6.8	10.2	7.6
South Central	7.9	8.0	8.1
South Western	5.1	N/A	5.1
North Western	6.4	12.1	6.9
Total	6.3	10.1	6.8

Table 17

Deaths and Reviews, 2001 - 2002, by Region and Age Group

Reviews

Region	Fetus	Infant	Child	Total
Co. Residence Missing			4	4
Eastern (1)	5	15	11	31
North Central (2)	11	21	20	52
South Central (3)	22	25	16	63
South Western (4)	21	20	19	60
North Western (5)	29	35	41	105
Total	88	116	111	315

Deaths

Co. Residence Missing			1	1
Eastern (1)	12	15	18	45
North Central (2)	18	25	26	69
South Central (3)	23	38	26	87
South Western (4)	20	32	22	74
North Western (5)	31	44	40	115
Total	104	154	133	391

Percent Reviewed

Eastern (1)	41.7	100.0	61.1	68.9
North Central (2)	61.1	84.0	76.9	75.4
South Central (3)	95.7	65.8	61.5	72.4
South Western (4)	105.0	62.5	86.4	81.1
North Western (5)	93.5	79.5	102.5	91.3
Total	84.6	75.3	83.5	80.6

Table 18

Infant and Child Deaths, by Region and Manner of Death, 2001 - 2002

							% of Regional Total	
	Natural	Accident	Homicide	Unknown	Suicide	Total	Natural	Accident
Children								
Eastern (1)	6	10	0	0	2	18	33.3	55.6
North Central (2)	9	10	1	1	5	26	34.6	38.5
South Central (3)	9	9	4	2	2	26	34.6	34.6
South Western (4)	9	9	3	0	1	22	40.9	40.9
North Western (5)	6	26	0	1	7	40	15.0	65.0
Totals	39	64	8	4	17	132	29.5	48.5

	Natural	Accident	Homicide	Unknown	Total	Natural	Accident
Infants							
Eastern (1)	13	0	1	1	15	86.7	0.0
North Central (2)	23	0	0	2	25	92.0	0.0
South Central (3)	32	2	0	4	38	84.2	5.3
South Western (4)	25	2	0	5	32	78.1	6.3
North Western (5)	37	1	0	6	44	84.1	2.3
Totals	130	5	1	18	154	84.4	3.2

APPENDIX B

Montana Counties by Region

Health Planning Regions

Montana is divided into five geographic regions for the purpose of comprehensive health planning. Population density for each region must be considered when looking at data by region. Region V, for example, has the largest population base.

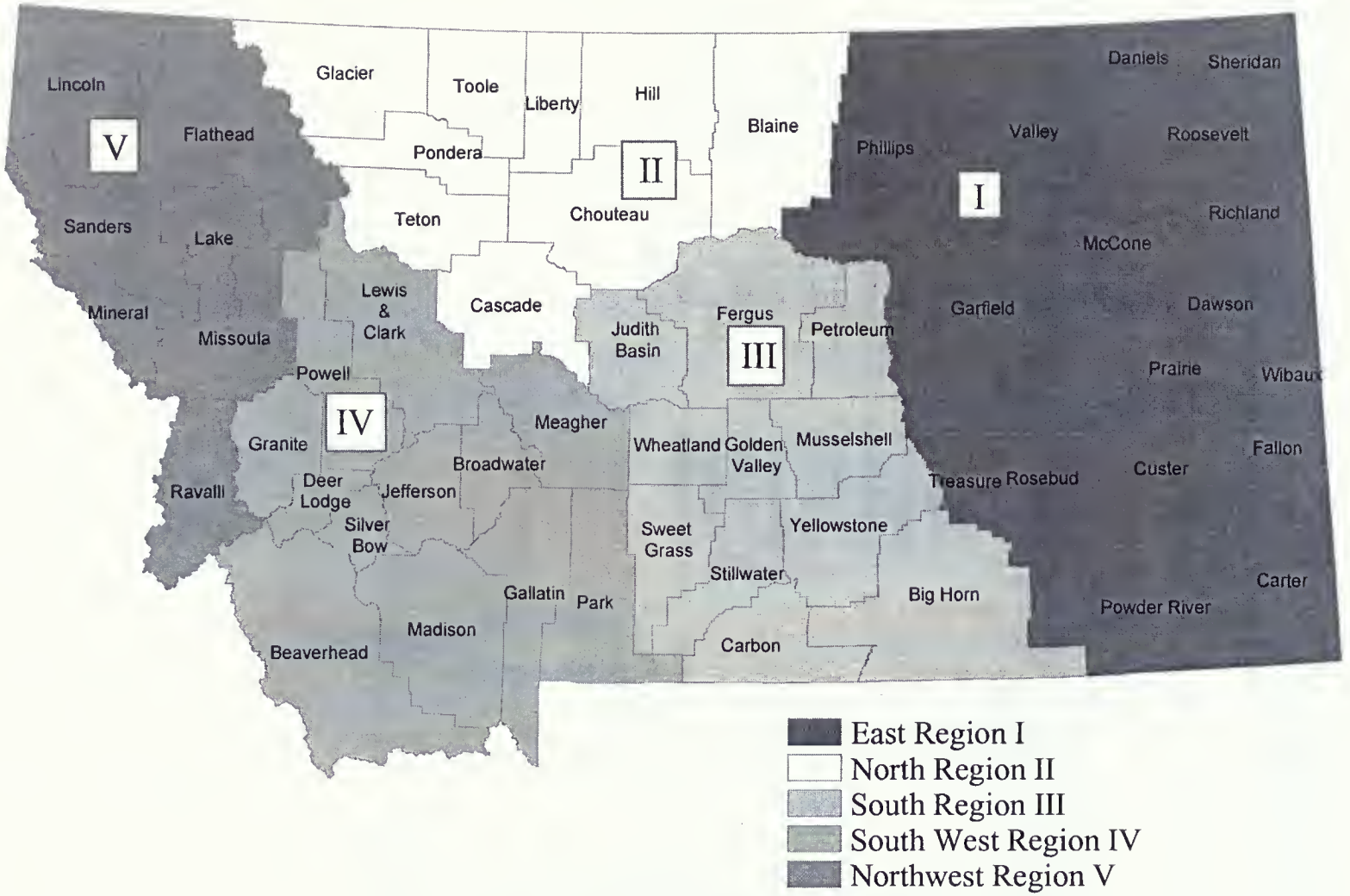
Tables 15, 16, 17, and 18 in the appendix display health planning regional data.

Montana Counties by Health Planning Region

East Region I	North Region II	South Region III	South West Region IV	North West Region V
Carter	Blaine	Big Horn	Beaverhead	Flathead
Custer	Cascade	Carbon	Broadwater	Lake
Daniels	Choteau	Fergus	Deer Lodge	Lincoln
Dawson	Glacier	Golden Valley	Gallatin	Mineral
Fallon	Hill	Judith Basin	Granite	Missoula
Garfield	Liberty	Musselshell	Jefferson	Ravalli
McCone	Pondera	Petroleum	Lewis & Clark	Sanders
Phillips	Teton	Stillwater	Madison	
Powder River	Toole	Sweet Grass	Meagher	*(Flathead*
Prairie		Wheatland	Park	*Reservation*)
Richland	*(Blackfeet,*	Yellowstone	Powell	
Roosevelt	*Rocky Boys &*		Silver Bow	
Rosebud	*Ft Belknap*	*(Crow &*		
Sheridan	*Reservations)*	*Northern*		
Treasure		*Cheyenne*		
Valley		*Reservation*)		
Wibaux				
(Ft Peck				
Reservation)				

Health Planning Regions

December 2004



APPENDIX C

Montana Code Annotated

Montana Code Annotated 2003

TITLE 50. HEALTH AND SAFETY
CHAPTER 19. PREGNANT WOMEN AND NEWBORN INFANTS

Part 4. Fetal, Infant, and Child Mortality Prevention Act

50-19-401. Short title. This part may be cited as the "Fetal, Infant, and Child Mortality Prevention Act".

History: En. Sec. 1, Ch. 519, L. 1997.

50-19-402. Statement of policy -- access to information. (1) The prevention of fetal, infant, and child deaths is both the policy of the state of Montana and a community responsibility. Many community professionals have expertise that can be used to promote the health, safety, and welfare of fetuses, infants, and children. The use of these professionals in reviewing fetal, infant, and child deaths can lead to a greater understanding of the causes of death and the methods of preventing deaths. It is the intent of the legislature to encourage local communities to establish voluntary multidisciplinary fetal, infant, and child mortality review teams to study the incidence and causes of fetal, infant, and child deaths and make recommendations for community or statewide change, if appropriate, that may help prevent future deaths.

(2) A health care provider may disclose information about a patient without the patient's authorization or without the authorization of the representative of a patient who is deceased upon request of a local fetal, infant, and child mortality review team. The review team may request and may receive information from a county attorney as provided in 44-5-303(4), from a tribal attorney, and from a health care provider as permitted in Title 50, chapter 16, part 5, or applicable federal law. The review team shall maintain the confidentiality of the information received.

(3) The local fetal, infant, and child mortality review team may:

(a) perform an indepth analysis of fetal, infant, and child deaths, including a review of records available by law;

(b) compile statistics of fetal, infant, and child mortality and communicate the statistics

to the department of public health and human services for inclusion in statistical reports;

(c) analyze the preventable causes of fetal, infant, and child deaths, including child abuse and neglect; and

(d) recommend measures to prevent future fetal, infant, and child deaths.

(4) A local fetal, infant, and child mortality review team may not review deaths of fetuses, infants, or children who are Indians and which deaths occur within the boundaries of an Indian reservation with a tribal government that opposes the review.

History: En. Sec. 2, Ch. 519, L. 1997; amd. Sec. 11, Ch. 396, L. 2003; amd. Sec. 1, Ch. 413, L. 2003.

50-19-404. Records -- confidentiality. Material and information obtained by a local fetal, infant, and child mortality review team are not subject to disclosure under the public records law. Material and information obtained by a local fetal, infant, and child mortality review team are not subject to subpoena.

History: En. Sec. 4, Ch. 519, L. 1997; amd. Sec. 3, Ch. 413, L. 2003.

50-19-405. Unauthorized disclosure -- civil penalty. A person aggrieved by the use of information obtained pursuant to 50-19-402(2) for a purpose not authorized by 50-19-402(3) or by a disclosure of that information in violation of 50-19-402(2) may bring a civil action in the district court of the county of the person's residence for damages, costs, and fees as provided in 50-16-553(6) through (8) or 50-16-817.

History: En. Sec. 5, Ch. 519, L. 1997; amd. Sec. 12, Ch. 396, L. 2003; amd. Sec. 4, Ch. 413, L. 2003.

50-19-406. Unauthorized disclosure -- misdemeanor. A person who knowingly uses information obtained pursuant to 50-19-402(2) for a purpose not authorized by 50-19-402(3) or who discloses that information in violation of 50-19-402(2) is guilty of a misdemeanor and upon conviction is punishable as provided in 46-18-212.

History: En. Sec. 6, Ch. 519, L. 1997; amd. Sec. 13, Ch. 396, L. 2003; amd. Sec. 5, Ch. 413, L. 2003.

APPENDIX D

Press Releases

For immediate release
January 7, 2004
Contact: Wilda McGraw, DPHHS, 406-444-3394

NICHD Alerts Parents to Winter SIDS Risk

The cold winter months bring an increase in the number of infants who die from Sudden Infant Death Syndrome, or SIDS, according to the National Institute of Child Health and Human Development, one of the National Institutes of Health. During colder months, parents often place extra blankets or night clothes on infants, hoping to provide them with extra warmth. In fact, the extra material may actually increase an infant's risk for SIDS.

"Parents and caregivers should be careful not to put too many layers of clothing or blankets on infants because overheating increases the risk of SIDS," said Duane Alexander, M.D., director of the NICHD. "Of course, parents and caregivers should always place infants to sleep on their backs -- at nighttime and at naptime."

For almost a decade, the NICHD has led the "Back to Sleep" campaign, which recommends that, unless there's a medical reason not to, infants should be placed on their backs to sleep, on a firm mattress with no blankets or fluffy bedding under or over them. If a blanket is used, it should be placed no higher than a baby's chest and be tucked in under the crib mattress. The baby's crib or sleep area should be free of pillows and stuffed toys, and the temperature in the baby's room should be kept at a level that feels comfortable for an adult. Since the NICHD campaign began, the rate of SIDS in the U.S. has declined by more than 50 percent. Despite this progress, SIDS claims the lives of roughly 2,500 infants each year.

SIDS is the sudden, unexplained death of an infant in the first year of life. Its causes are still unclear, and while it is not yet possible to predict which infants might fall victim to SIDS, it is possible to reduce factors known to increase SIDS risk:

- Always place a baby to sleep on his or her back – even at naptime.
- Don't smoke around a baby.
- Don't smoke if you're pregnant.
- Place a baby on a firm mattress, such as in a safety-approved crib.
- Remove soft, fluffy bedding and stuffed toys from a baby's sleep areas.
- Keep blankets and other coverings away from a baby's nose and mouth.
- Don't put too many layers of clothing or blankets on a baby.

Make sure everyone who cares for a baby knows how to reduce SIDS risk, especially the need to place infants on their backs.

From 1997 to 2000, the Montana infant mortality rate due to SIDS was 0.92 deaths per 1,000 live births. African American babies are 2.4 times more likely than white babies to die of SIDS. Native American babies are 2.8 times more likely to die of SIDS. SIDS rates for infants of American Indian and Alaska Native mothers are the highest of all race and ethnic groups.

The NICHD distributes a variety of free "Back to Sleep" educational materials for parents and health care providers, including brochures, crib reminder stickers, door hangers, and videos. Most of these materials are available in English and Spanish. To obtain these free materials, other NICHD publications, or information about the Institute, visit the NICHD Web site: http://www.nichd.nih.gov, call the NICHD Information Resource Center at 1-800-370-2943, or e-mail NICHDClearinghouse@mail.nih.gov.

Additional SIDS information may be obtained by contacting your local public health department or by contacting Wilda McGraw, RN, SIDS Coordinator, Montana Department of Public Health and Human Services, at (406) 444-3394.

For immediate release
September 30, 2004
Contact: Wilda McGraw, State FICMR Program, DPHHS, 406-444-3394
Gayle Shirley, Public Information Officer, DPHHS, 406-444-2596

State FICMR Program Makes Gun Safety a Priority

As Montanans gear up for the fall hunting season, state health officials reminded them Thursday to use extra caution when handling and storing firearms in the presence of children.

"Every year on average, 12 Montana children die as a result of firearm incidents," said Wilda McGraw, coordinator of the state Fetal, Infant and Child Mortality Review program (FICMR). "This includes deaths from unintentional injury, suicide, and homicide.

FICMR is a statewide effort to reduce preventable fetal, infant and child deaths by making recommendations based on lessons learned from reviews of the deaths.

"Most parents are concerned about the safety of their children and make sure they use bicycle helmets, life preservers, seat belts and car seats," McGraw said. "We just want to remind them to think about gun safety, too."

According to data collected in the statewide Behavioral Risk Factor Surveillance System survey in 2001, 58 percent of adults in Montana keep firearms in or around their homes. Only 64 percent of those adults indicated that they keep their firearms in a secure, locked cabinet or storage container.

"Having a gun in the home, especially if it's not stored properly, is a significant risk factor for childhood injury and death," McGraw said. "In fact, on a national level, firearm-related injuries are the leading cause of death in children."

McGraw urged parents to protect their children by emptying and locking up their guns between hunting trips. She said local FICMR teams reviewed 22 of 48 firearm deaths that occurred from 1997 through 2000 and found that the firearms involved were not locked up in 77 percent of those cases.

The FICMR program recommended that parents take the following precautions to protect their children from preventable gun injuries and deaths:

- If you own a gun, unload it and lock it up between uses.
- Lock and store ammunition separately from firearms.
- Hide the keys where your kids can't find them.
- Ask if guns are safely stored at places your children visit or play, including homes of day-care providers.
- Talk to your children about guns and gun safety.
- Teach young children not to touch guns and to tell an adult if they find one.

"Guns are a part of our Western frontier heritage," McGraw said. "Gun safety is a legacy we should leave our children."

For immediate release
July 29, 2004
Contact: Wilda McGraw, Public Health Nurse Consultant, DPHHS, 406-444-3394
Gayle Shirley, Public Information Officer, DPHHS, 406-444-2596

Health Officials Issue Reminder: Never Leave Kids in Car

As Montanans head into the "dog days" of August, state public health officials issued a reminder never to leave children alone in a vehicle--even for a few minutes.

"Summer is when we hear tragic news stories about children being trapped in a car and dying of heat suffocation," said Wilda McGraw, a public health nurse consultant with the Montana Department of Public Health and Human Services. "Too often parents think they can leave their child in the car while they run a quick errand. But it only takes a few minutes to make a tragedy. You should never leave a child enclosed in a car in any temperature."

McGraw noted that the temperature inside a vehicle can climb quickly, even when windows are cracked open. When the temperature outside is 93 degrees Fahrenheit, she said, the temperature inside the car can reach 125 degrees in only 20 minutes.

"Children don't tolerate heat as well as adults," she added. "When they're left in a hot vehicle, or when they get trapped while playing in unlocked cars, their core body temperature can increase three to five times faster than that of an adult."

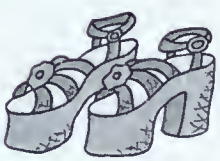
The result can be permanent injury or even death.

To prevent heat suffocation, McGraw recommended that parents follow these guidelines:

- Never leave children alone in a car with the windows rolled up, even for a few minutes.
- Never leave children in a car if they fall asleep in their car seats.
- Never leave children in a car while you go into a store.
- Teach your children not to play in or around cars or in the garage.
- Lock your car doors when the vehicle is not in use, and keep the keys out of the reach of children.
- Be aware of junk vehicles in the neighborhood and ask owners to have them towed or safely stored. If an owner doesn't respond, call city officials to find out what you have to do to get the car tagged for removal.

For further information about this report or the Montana FICMR program, contact:

Wilda McGraw, RN, BSN
Child Health Nurse Consultant
Montana Department of Public Health and Human Services
P.O. Box 202951
Cogswell Building, 1400 Broadway
Helena, MT 59620
Phone: (406) 444-3394
Fax: (406) 444-2606
E-Mail: wmcgraw@mt.gov



500 copies of this public document were published at an estimated cost of $3.00 per copy, for a total cost of $1,500.00, which includes $1,500.00 for printing and $0.00 for distribution.

MONTANA
Department of Public Health & Human Services